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No. 1388

ENGIN STORAG

THE  
**South African  
MINING JOURNAL**  
AND ENGINEERING RECORD  
With which is incorporated "THE SOUTH AFRICAN MINES, COMMERCE AND INDUSTRIES."

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Reference: The National Bank of South Africa, Limited, here and in London.

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# East Rand Proprietary Mines, Limited.

(Incorporated in the Transvaal.)

Directorate.—E. A. Wallers, C.B.E. (Chairman), alternate M. Honnet; Capt. J. P. Farrar, D.S.O., alternate W. J. Gau; Julius Friedlander, alternate G. C. Fitzpatrick; Sir H. Ross Skinner, alternate A. S. Milne; J. L. Jourdan; F. Raleigh, alternate A. F. Mullins; E. J. Renaud, alternate J. Emrys Evans, C.M.G.; F. G. C. E. Robellaz, alternate F. C. Dumat. European Committee.—C. F. Farrar, alternate Capt. J. P. Farrar, D.S.O.; F. Eckstein, alternate, P. Troquet; T. J. Miller. Consulting

Engineer.—R. C. Warriner. Manager at Mine.—E. C. J. Meyer. Secretaries.—Rand Mines, Ltd. London Secretary.—Herbert T. Hayward. Bankers.—The National Bank of South Africa, Ltd. Solicitors.—Webber and Wentzel. Auditors.—C. L. Andersson & Co. and A. E. Page. Head Office.—The Corner House, Johannesburg. London Transfer Agency.—4, London Wall Buildings, London, E.C. Paris Correspondents.—Credit Mobilier Francais, 30 and 32 Rue Taitbout, Paris. (At 31st December, 1917.)

## REPORT OF THE DIRECTORS

For the Year ended 31st December, 1917.

To be submitted to Shareholders at the Twenty-second Ordinary General Meeting, to be held in the Board Room, 2nd Floor, Corner House, Johannesburg, on Wednesday, the 29th May, 1918, at 11 a.m.

To the Shareholders,

EAST RAND PROPRIETARY MINES, LTD.

Gentlemen,—

Your Directors have pleasure in submitting their Twenty-second Annual Report and Audited Accounts for the year ended 31st December, 1917.

### PROPERTY.

The area of your Property has been recalculated during the year, and is now equal to 4,273.0734 mining claims, 7 water-rights, 6 mining stands, and freehold portion of Farm Putfontein in extent 398 morgen 120 roods.

### OPERATIONS.

Particulars of the results of last year's operations, the development accomplished, and the ore reserves and values are dealt with in the annexed reports of the Consulting Engineer and Manager, to which your particular attention is directed.

The ore reserve has been recalculated, and is estimated at 2,732,000 tons, of a value of 6.2 dwt., which is a reduction of 1,468,000 tons, with an increase in the value of 1dwt.

The success achieved by the Francois process of cementation has permitted the 26th level cross-cut to be extended for a distance of 530 feet, but work was stopped early in February on account of water. This process, where applied to water-conveying fissures, has been successful, but as progress is made it becomes necessary to apply it as other fissures are encountered.

In the Chairman's address in June last an outline was given of the policy adopted by the Board in connection with the exploitation of the Southern areas and the continuation of ordinary development in the mine. To carry out this policy it was necessary to produce the profit required for the payment of fixed charges, namely, the redemption of debentures, debenture interest, Miners' Phthisis Compensation Fund, Undermining Rights annuities, taxation, etc., which clearly depended on three factors, namely, an adequate supply of native labour, no further increase in working costs, and the disclosure in development of a reasonable percentage of payability. Unfortunately, none of these have eventuated. The supply of native labour decreased instead of improving, working costs have increased, and only 424,675 tons of payable ore were developed against 1,018,022 tons mined from the ore reserve.

Shareholders were advised in the quarterly report for September of the Board's decision to modify the foregoing policy in such a way that whilst continuing the scheme for the development of the Southern areas the ordinary development operations were to be confined to the Driffontein section area and East of Cinderella Consolidated boundary, where the most promising indications existed, it being clearly stated that even the continuation of this policy was dependent on the profits earned, because if heavy differences between expenditure and revenue had to be met the exploitation of the Southern area could not be continued. Whilst the necessary revenue was earned in the last quarter of the year, due to revenue of an extraordinary nature, the profits earned in the two months of the current year are materially below the sum required to meet the fixed charges mentioned above. Notwithstanding this the Board is still carrying on the work in connection with the exploitation of the Southern areas, but the continuation of this work, which consists of the sinking of the Circular Shaft and the extension of the 26th Level crosscut, will require careful consideration in the near future.

It is regretted that the development operations in the Blue Sky Section have been unsatisfactory; it will be seen from the Manager's report that development in this portion of the mine was discontinued towards the end of the year owing to no payable values being obtained.

It will be noted that a considerable amount of work has been done in the area East of the Cinderellas with moderately encouraging results. In the Driffontein section development has disclosed ore of good value. Work in connection with the opening up of old workings is being continued, but results so far have not met with a great measure of success.

### ACCOUNTS.

The working profit for the year amounted to £188,951 1s. 0d., from which has been deducted £80,850 17s. 6d., the difference between sundry items of expenditure and revenue account; the chief items of expenditure being Debenture Interest £48,208 10s. 0d., expenditure on authorised votes £28,685 0s. 10d., Miners' Phthisis Compensation Fund £12,754 7s. 6d., and War Leave allowances £22,908 2s. 0d.

The net profit of £108,100 3s. 6d. has been carried to Appropriation Account, and with the balance of £315,169 0s. 10d. unappropriated at the commencement of the year and a discount of £40,219 16s. 10d. on debentures purchased during the year, making a total of £463,489 0s. 2d. has been dealt with as follows:—

Nominal value of Debentures purchased during the year	£114,150 0 0
Annuity to Government in respect of Undermining Rights	17,567 0 0
Government Taxes	2,482 2 7
Capital expenditure	76,360 4 1
	£210,559 6 8
Leaving a balance unappropriated 31st December, 1917, represented by Cash, Investments and Cash Assets, less Liabilities (including Mine Development Suspense Account £322,853 8s. 8d., excluding the liability of outstanding Debentures £928,930)	252,930 2 6
	£463,489 9 2

This amount is made up as follows:—

Shares and interest in Co-operative Concerns	£14,144 14 6
Stores and Materials, etc.	220,818 18 11
Sundry Debtors and Payments in Advance	25,774 9 3

Less net cash liability after allowing for Mine Development Suspense Account £322,853 8s. 8d., and excluding Debentures outstanding £928,930	7,808 0 2
	£252,930 2 6

From the foregoing it will be noticed that the balance of Appropriation Account shows a falling off for the year of £62,239 6s. 4d., representing expenditure in excess of profits earned, details of which will be found in the Working Expenditure and Revenue Account and Appropriation Account. In addition to the foregoing amount the sum invested in Stores and Materials, etc., has been increased by the sum of £26,424 5s. 3d., making a total falling off in the cash position for the year of £38,663 11s. 7d. At the commencement of the year the net current funds in hand amounted to £80,855 11s. 5d., leaving a deficiency as previously shown of £7,808 0s. 2d., which sum has been drawn from funds in respect of Mine Development Suspense Account. stock thereof in order that mining operations may not be interfered with on this account.

The whole of your holding in British Treasury Bills was disposed of, as well as £50,000 of its holding of British 5 per cent. War Loan.

It will be seen that there is still a large amount of the Company's funds invested in stores and materials. Owing to the war and the continued difficulty in obtaining mining supplies, shareholders will readily appreciate the necessity of carrying a heavy

The expenditure during the year on authorised votes amounted to £105,045 4s. 1d., details of which will be found in the Manager's report. Of this amount £76,360 4s. 1d. has been treated as Capital Expenditure and the balance has been dealt with in the second portion of the Working Expenditure and Revenue Account.

**East Rand Proprietary Mines, Limited—continued.**

As from 1st January, 1918, all expenditure will be charged to working costs with the exception of the cost of sinking the Circular Shaft and extending the 28th Level crosscut; this will continue to be charged to Mine Development Suspense Account.

**MINE DEVELOPMENT SUSPENSE ACCOUNT.**

The charge of 2s. 6d. per ton milled to working costs was discontinued from the 31st October, 1917, after which date development expenditure as incurred was charged direct to Working Costs.

Expenditure on continuing the sinking of the Circular Shaft and extending the 26th Level crosscut has been charged to "Mine Development Suspense Account" since the 1st November, 1917.

The balance of this account at the end of the year amounted to £322,853 8s. 8d., the funds in respect of which, however, have been drawn on to the extent of £7,808 0s. 2d. in order to meet the current cash liability as previously mentioned.

**DEBENTURES.**

The Debentures outstanding at the 31st December, 1917, amounted to £928,930, having been reduced by £114,150 during the year. The nominal amount of debentures purchased by your Directors resulted in a discount of £40,219 16s. 10d. These debentures were applied in satisfaction of the obligation of the Company to redeem £90,000 debentures by a fourth drawing of debenture which would otherwise have been necessary, in view of which debenture holders were notified that no drawing for the year ended February, 1918, would take place.

The position at the year-end with regard to the redemption of debentures is that the Company has purchased £61,070 in excess of the quota necessary to be redeemed annually. This leaves £28,930 to be provided on account of the fifth drawing of £90,000.

Interest Coupons Nos. 13 and 14 accrued during the year and were paid on the 1st July, 1917, and 1st January, 1918, respectively.

**DIVIDENDS.**

No Dividends were declared by your Directors during the year.

**CONSULTING ENGINEER.**

Mr. R. C. Wariner, who resigned his position as Consulting Engineer to your Company on the 31st December, 1917, has been succeeded by Mr. E. H. Clifford.

**CHANGE OF ADMINISTRATION.**

The administration of your Company was taken over on the 1st July, 1917, by the Central Mining/Rand Mines Group.

**DIRECTORS.**

Messrs. F. Raleigh, F. G. C. E. Robellaz, and E. J. Renaud retire from the Board in accordance with the Company's Articles of Association, but are eligible, and offer themselves for re-election.

**Working Expenditure and Revenue Account for the Year ended 31st December, 1917.**

Dr.	Cr.
To Mining Expenses .....	£1,097,386 7 4
,, Mine Development .....	202,960 5 5
Reduction Expenses .....	304,297 2 1
,, General Expenses .....	116,738 17 0
	1,721,432 11 10
,, Credit Balance on working for the year, carried down .....	188,951 1 0
	£1,910,383 12 10
To Other Expenditure on Account of—	
Authorised Votes .....	£28,685 0 10
Donations .....	1,648 10 5
Debenture Interest .....	48,208 10 0
Miners' Phthisis Compensation Fund .....	12,754 7 6
War Leave .....	22,908 2 0
Loss on Realisation of Invest- ments .....	247 17 6
	£114,452 8 3
,, Credit Balance carried to Ap- propriation Account .....	108,100 3 6
	£222,552 11 9
	£1,910,383 12 10
By Balance brought down .....	£188,951 1 0
,, Interest and Exchange .....	£26,261 8 1
,, Sundry Revenue .....	7,340 2 8
	33,601 10 9
	£222,552 11 9

**APPROPRIATION ACCOUNT.**

Dr.	Cr.
To Government Taxes—	
Adjustment under previous Taxa- tion Acts .....	£862 1 7
English Income Tax .....	1,620 1 0
	£2,482 2 7
,, Expenditure on Capital Account Written Off—	
Surface and Underground Equip- ment, etc. (authorised votes) .....	76,360 4 1
Proportion of Under-mining Rights Annuity for year ended 31st December, 1917 .....	17,567 0 0
Nominal Value of Debentures pur- chased .....	114,150 0 0
	208,077 4 1
,, Balance Unappropriated carried to Balance Sheet .....	252,930 2 8
	£463,489 9 2
By Balance Unappropriated—	
As per Balance Sheet, 31st Decem- ber, 1916 .....	£315,169 8 10
,, Balance of Working Expenditure and Revenue Account—	
For the year ended 31st December, 1917 .....	108,100 3 6
,, Debentures—	
Being the difference between the nominal value of Debentures purchased during the year .....	£114,150 0 0
And the net cost thereof .....	73,930 3 2
	40,219 16 10
	£463,489 9 2

## East Rand Proprietary Mines, Limited—continued.

## BALANCE SHEET, 31st DECEMBER, 1917.

Dr.	Cr.
To Capital Account—	
Registered :	
2,514,000 shares of £1 each ... ... ... £2,514,000 0 0	
Less : 68,103 shares of £1 each unissued ... 68,103 0 0	
Issued 2,445,897 shares of £1 each	£2,445,897 0 0
,, 5 per cent. First Mortgage Debentures ... ... ... 1,500,000 0 0	
Less purchased to date ... ... ... 571,070 0 0	
	928,930 0 0
,, Government of the Union of South Africa "Annuity Account"—	
For total amount payable (in twelve annual instalments of £17,567 each) as consideration for grant of Undermining Rights 210,804 0 0	
Less amount paid to 3rd July, 1917, and proportion provided for balance of year ended 31st December, 1917	96,618 10 0
	114,185 10 0
	3,489,012 10 0
,, Sundry Shareholders—	
Unclaimed Dividends ... ... ... 35,028 0 5	
,, Sundry Debenture Holders—	
Debenture Interest, Coupon No. 14 ... £23,223 5 0	
Unclaimed Interest 5,996 2 10	
	29,219 7 10
,, Sundry Creditors—	
On account of wages, stores, etc.	107,567 9 2
	171,814 17 5
,, Mine Development Suspense Account ...	322,853 8 8
,, Sales of Assets Suspense Account	2,310 19 5
	496,979 5 6
,, Balance of Appropriation Account—	
Unappropriated	252,930 2 6
NOTES.—There are further liabilities as under:	
I.—On account of shares and interests subscribed for in Co-operative concerns, viz.: Co-operative Exchange Yard, Ltd.—	
£64 per share uncalled on 1 share	£64 0 0
Rand Mutual Assurance Co., Ltd.—	
£4 per share uncalled on 715 shares	2,860 0 0
Witwatersrand Native Labour Association, Ltd.—	
8a. per share uncalled on 3,829 shares	1,535 12 0
Witwatersrand Co-operative Smelting Works, Ltd.—	
9s. 6d. per share uncalled on 5,323 shares	2,528 8 6
Native Recruiting Corporation, Ltd.—Deposit Account—	
15a. per native uncalled on complement	13,721 5 0
	£20,709 5 6
II.—For contracts open for the supply of Stores, etc.	
	£4,238,921 18 0
	£4,238,921 18 0
	£4,238,921 18 0

RAND MINES, LTD., Secretaries.  
S. C. STEIL, Secretary.

E. A. WALLERS, Chairman.  
E. RENAUD, Director.

To the Shareholders,

### EAST RAND PROPRIETARY MINES, LTD.

We have audited the Balance Sheet of the East Rand Proprietary Mines, Ltd., dated the 31st day of December, 1917, above set forth, and have obtained all the information and explanations we have required. In our opinion such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Company's affairs according to the best of our information and the explanations given us, and as shown by the books of the Company, with which are incorporated the audited returns received from the London Office.

### AUDITORS' REPORT.

A. E. PAGE,  
C. L. ANDERSSON & CO.,  
Incorporated Accountants,  
Auditors.



Robinson Deep, Limited—continued.

BALANCE SHEET at 31st DECEMBER, 1917.

DR.	CR.
To Capital ... ... ... £706,807 0 0	By Property and Equipment ... ... ... £1,893,249 7 10
500,000 "A" Shares of £1 each ... £25,000 0 0	As per Balance Sheet at 31st December, 1916 ... ... ... £1,921,468 2 10
900,000 "B" Shares of £1 each ... £900,000 0 0	Less: Amount written off in respect of reduction of Robinson Deep G.M. Co., Ltd., Purchase Account (as per contra) ... ... £27,675 0 0
Less 218,183 "B" Shares of £1 each, held in reserve (of which 100,000 Shares are under option to The Consolidated Gold Fields of S.A., Ltd., and the Central Mining and Investment Corporation, Ltd., in equal moieties at par, in terms of the flotation agreement ... 218,183 0 0	Sales of Freehold ... 543 15 0
	28,218 15 0
	Expenditure to date on Equipment of Property (including sinking Chris Shaft) ... ... ... 265,380 16 11
	,, Interest in Plantation at Witkopjes 2,226 18 10
	,, Stores and Machinery on hand ... 94,896 0 3
	,, Stores and Machinery for sale ... 400 0 0
	,, Livestock and Vehicles, Furniture and Instruments ... 1,279 3 11
	,, Payments in Advance ... 23,307 9 7
	Native Labour Supply ... 4,066 15 9
	Central Buying Committee—Working Capital ... 2,585 7 10
	Miners' Phthisis Compensation Fund ... 290 7 4
	Payments on Account of Mechanical Engineer's Orders ... 14,608 2 9
	Claim Licences, Insurance and Sundries ... 1,756 15 11
	6,380 6 3
	,, Sundry Debtors ...
	,, Investments (at cost or under)—
	1,254 Witwatersrand Native Labour Association, Ltd., Shares of £1 each (12s. paid, also bonus of 25s. per share) ...
	1,622 Witwatersrand Co-operative Smelting Works, Ltd., Shares of £1 each (10s. 6d. paid) ...
	53 Native Recruiting Corporation, Ltd., Shares of £1 each, fully paid and deposit of 5s. each on total complement of 5,199 natives, being part of total liability under agreement of £1 per head
	Gold in Transit ... 4,524 4 0
	Cash at Bankers, London and Johannesburg ... 30,010 5 9
	For Dividends unclaimed (per contra) ... 22,259 7 2
	Cash at Bankers, on Fixed Deposit on Current Accounts and in hand, London and Johannesburg ... 44,119 7 1
	66,378 14 3
Dividends Unclaimed (per contra)	22,259 7 2
Appropriation Account ... ... ...	71,099 16 8
Balance at 31st December, 1917.	
Contingent Liabilities.—	
8s. per Share on 1,254 Witwatersrand Native Labour Association, Ltd., Shares ... £501 12 0	
9s. 6d. per Share on 1,622 Witwatersrand Co-operative Smelting Works, Ltd., Shares ... 770 9 0	
Native Recruiting Corporation, Ltd.—Deposit Account—15s. per native unclaimed on complement of 5,199 natives ... 3,899 5 0	
Balance payable on uncompleted contracts for Machinery, Plant, etc. ... 14,283 15 0	
	<u>£19,455 1 0</u>
	<u>£2,388,043 7 7</u>
	<u>£2,388,043 7 7</u>

The Consolidated Gold Fields of South Africa, Ltd., Secretaries.  
Per A. S. THOMPSON.

To the Shareholders of

ROBINSON DEEP, LIMITED,

We report that we have examined the above Balance Sheet and the Books and Vouchers of the Company in Johannesburg for the twelve months ended 31st December, 1917, and the audited accounts received from London, and have obtained all the information and explanations we have required as Auditors. In our opinion such Balance Sheet is properly drawn up, so as to exhibit a true and correct view of the state of the Company's affairs, according to the best of our information, and the explanations given to us, and as shown by the Books of the Company.

D. CHRISTOPHERSON (Chairman),  
E. A. WALLERS, Directors.

DOUGLAS, LOW AND CO.,  
F. W. DIAMOND & ENGLISH,  
(Incorporated Accountants), Auditors.

Robinson Deep, Limited—continued.

## INCOME AND EXPENDITURE ACCOUNT for Year Ended 31st DECEMBER, 1917.

Dr.	Cr.
To Mining Expenses ... ... ... £352,091 3 11	By Gold Account ... ... ... ... £772,618 19 11
,, Development ... ... ... ... 65,876 16 11	
,, Pumping and Bailing ... ... ... 24,609 10 1	
,, Sorting and Crushing ... ... ... 5,073 14 0	
,, Ore Transport ... ... ... ... 10,121 9 4	
,, Milling Expenses ... ... ... ... 27,352 4 7	
,, Tube Milling Expenses ... ... ... 30,127 17 0	
,, Cyaniding Sands ... ... ... ... 26,757 9 5	
,, Cyaniding Slimes ... ... ... ... 18,129 5 6	
,, General Charges ... ... ... ... 55,556 3 2	
	<u>£615,695 13 11</u>
,, Expenditure on Renewals and Re- placements ... ... ... ... 14,232 1 1	
	<u>£629,927 15 0</u>
,, Balance, being Profit on Working carried down ... ... ... ... 142,691 4 11	
	<u>£772,618 19 11</u>
To Miners' Phthisis Act ... ... ... £5,204 6 4	By Profit on Working, brought down ... ... ... ... £142,691 4 11
Assessment under Miners' Phthisis Act 1912 and 1916 (Compensa- tion Fund). . . . .	
,, Income Tax, South Africa, estimated 9,254 10 6	
,, Sundry Amounts written off... ... 3,574 10 10	
,, Special Expenditure due to War... 11,495 14 9	
,, Interest, Commission and Exchange 30 14 2	
,, Interest on Joint Loans ... ... ... 4,944 8 9	
,, Preliminary and Flotation Expenses 129 15 2	
,, French Government Duty and Stamps Account ... ... ... ... 232 2 7	
	<u>34,866 3 1</u>
,, Balance to Appropriation Account 109,656 7 8	
	<u>£144,522 10 9</u>
	<u>£144,522 10 9</u>

## APPROPRIATION ACCOUNT.

Dr.	Cr.
To Dividend on "A" Shares ... ... ... £100,000 0 0	By Balance as at 31st December, 1916... ... ... ... £7,019 5 4
No. 3, 4s. per share, paid on 30th August, 1917. . . . .	
,, Provision for Redemption of "A" Shares ... ... ... ... 1,000 0 0	
	<u>£101,000 0 0</u>
,, Balance carried to Balance Sheet... 71,099 16 8	
	<u>£172,099 16 8</u>
	<u>£172,099 16 8</u>

The Consolidated Gold Fields of South Africa, Ltd., Secretaries.  
Per A. S. THOMPSON.D. CHRISTOPHERSON (Chairman),  
E. A. WALLERS, Directors.

Examined and found correct.

DOUGLAS, LOW AND CO.,  
F. W. DIAMOND & ENGLISH,  
(Incorporated Accountants), Auditors.

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## Notes and News

The report of the directors of the Bantjes for the quarter ending 31st March, 1918, shows that the total footage done was 1,495 feet; total footage sampled on reef, 1,060 feet. Reef disclosures in payable areas were as follows: Main Reef Leader, 285 feet, width 27 inches, assay value 19·3 dwts.; South Reef, 390 feet, width 18 inches, assay value, 18·5 dwts. Operations for the quarter resulted in a loss on working of £2,148, on account of the disorganisation of mining operations due to the exceptional rainfall and a reduction in yield of 10d. per ton milled. The flooding of the lower levels has temporarily held up work on the 17th level.

\* \* \* \*

The report of the directors of the New Modderfontein for the quarter ending 31st March, 1918, states that development operations were again mainly confined to crosscuts, ore passes to stopes and general work in connection with opening up the lower section of the mine. Consequently the proportion exposing reef was relatively small. Working costs were abnormal, due to the expenditure for preliminary stoping and additional equipment required in the newer parts of the mine. Milling operations at the new reduction plant commenced during April, and will be conducted on the maximum scale possible with the existing hoisting equipment. Advice has been received that the remaining portions of the main winding engine have been completed and passed, and that they will be shipped as soon as possible.

\* \* \* \*

The report of the directors of the Modderfontein B. for the quarter ending 31st March, 1918, states that milling operations continued below Modder B. Prospects. the capacity of the plant, mainly owing to the lack of labour, which was insufficient for both current requirements and for the work of bringing the underground workings into position to meet the demands of the additions to the reduction plant when completed. The yield, at 4s. 11d., though highly satisfactory, was considerably below the abnormal returns obtained in the preceding quarter. The general position is now improved: most of the unproductive work of opening up new stoping areas has been completed, and the labour so occupied has been transferred to producing ore for the mill, and improvement in output can therefore be expected during the current quarter. Work in connection with the plant extension has been slower than anticipated, being held back by the lack of skilled men.

\* \* \* \*

The Transvaal Chamber of Mines issued an important statement this week indicating that something may be done towards financially assisting those employees of the poorer mines who wish to go to the front. "References have recently appeared in the Press," the Chamber says, "to the possibility of the gold mining companies coming to an arrangement under which some financial assistance would be given to employees of the poorer mines who are anxious to enlist and who are not indispensable, but who cannot be granted the usual half and quarter pay while on active service owing to the financial position of the mines on which they are employed. The matter has been under the consideration of the Executive Committee of the Chamber, and, while it has not been possible to arrive at an arrangement under which the whole of the active service allowances would be pooled by the industry, yet each group has agreed in regard to its mines that within the group the necessary financial assistance will be given to the extent warranted by the financial position of the group. It is hoped that this arrangement will enable an additional number of mine employees to proceed on active service. The Chamber is also making arrangements for the issue of a certificate and badge to those mine employees who volunteer for active service, but are refused

permission by the mine on which they are employed on the ground that they are considered indispensable to the continuance of its operations in view of the necessity of maintaining the gold output as required by the Imperial Government."

\* \* \* \*

The report of the Rooiberg directors for the quarter ended 31st March, 1918, shows that the expenditure on shaft sinking, development and prospecting was £7,920 12s. 2d.; cost of mining 2,626 tons of ore, and treating this

**Rooiberg Minerals.** and 4,285 tons of stock slime, £8,589 17s. 8d.; estimated revenue (less realisation charges) from 70 long tons of concentrates produced, £11,038 19s. 3d.; adjustments in respect of previous shipments, £457 5s.; total, £11,496 4s. 3d. (Note: The average price per ton of metallic tin on which the quarter's revenue has been determined is £278 12s. 6d.) Reduction statistics: Number of stamps, 10; days mill ran (24 hours), 30-09; ore treated (including 4,285 tons of stock slime retreated), 6,911 short tons; concentrates produced, 70 long tons; average assay value of concentrates, 64·35 per cent. M.T. No considerable ore bodies have been disclosed as the result of the work for the quarter. Prospecting work on "Blaauwbank" has been continued with satisfactory results. A number of small pockets of medium grade ore have been located; work, however, has been hampered by the excessive rains.

\* \* \* \*

At the annual meeting of the Witwatersrand Native Labour Association, the Chairman, Mr. Wallers **The W.N.L.A. and Medical Research.** —as will be seen from the report in this issue—dealt with the work of the Institute of Medical Research. He said

that so far as research went, it had been chiefly represented by Dr. Lister's anti-pneumonia discovery. That would in itself justify the establishment of the institute by the Government and the association, but he wanted to put on record the unfortunate position that had been created in connection with the institute through the Government's refusal so far to agree that its subsidy of £5,000, together with the association's subsidy of a like amount, should be applied solely to research work. At present the research functions of the institute were overshadowed by a large and increasing quantity of routine work carried out for Government mines and for private individuals.

\* \* \* \*

It has been decided to proceed with a third Government Mine Training School, a site having

**Third Government Mine Training School.** been obtained at East Rand. The schools at the Wolvelder and Bantjes have been fully described in these columns. A building, costing £20,000, will be erected, and will accommodate a hundred boarders. The accommodation at the two existing schools is 155. The scheme is ultimately to have six of these schools for training about six hundred apprentices. Returned soldiers are being offered special facilities for learning mining.

\* \* \* \*

The text of an important clause in the Mining Leases Bill is as follows: (1) Notwithstanding anything to the contrary contained in Section 40 or in any other section of the principal Act, whenever the holder of a prospecting licence, on application for a renewal thereof, satisfies the Mining Commissioner that, during the period which has elapsed since the licence was last renewed, he has expended in working on any of the claims held thereunder not less than £1 per month per claim, the Mining Commissioner shall, subject to subsection (2), remit so much of the licence moneys due on such claims as would accrue to the public revenue, provided that no such remission of licence moneys shall be granted if the holder of the licence is a company unless the company satisfies the Mining Commissioner that in respect of the last preceding financial year it has not paid to the shareholders or debenture holders any sums by way of dividend, interest, bonus or otherwise. (2) Subject to an appeal to the Government Mining Engineer, the Commissioner shall decide whether, and to what extent, the work done on any particular claim or claims shall be considered for the pur-

poses of this section as work done on adjoining claims held by the same licence holder, whether under one licence or otherwise.

\* \* \* \*

In his valedictory address at the annual meeting of the Johannesburg Chamber of Commerce, the

**A Year's Coal Traffic.** outgoing President, Mr. C. H. Leake

closely analysed the trade of the Union for the past year from every point of view. He showed that the earnings from the coal traffic increased from £2,815,244 in 1916 to £3,209,944 last year—an addition of £394,700. As a matter of fact, the large increases in earnings have been due mainly to the considerable volume of coal and maize carried. The coal traffic alone increased from 6,985,832 tons in 1913 to 7,982,624 tons in 1917—a rise of 996,772 tons, or 14·3 per cent. It will be remembered that in September, 1916, the railway rates on bunker coal were increased by 6s. per ton because the cost of this was exceedingly low compared with the high prices ruling at the various ports throughout the world; and the Railway Board felt that advantage might be taken to augment the railway revenue, more especially since it could be done without unduly raising the price of coal, or of jeopardising new trade. In December last a further increase of 4s. per ton was imposed, and it is estimated that this will realise a further revenue of not less than £400,000 per annum. It is true, as stated by the Railway Board, that South African coal for bunkering purposes was lower in price than that which obtained in other parts of the world, but it is equally true that any additional charges made are borne entirely by the Mother Country, whether the coal is used for His Majesty's Navy or for bunkering merchant vessels; and the question is whether, seeing that we are so entirely dependent on the services of the British Navy and the Mercantile Marine, anything more than the actual cost should be charged in times like the present.

\* \* \* \*

At the annual meeting of the Johannesburg Chamber of Commerce, Mr. C. H. Leake, the outgoing

**The Pooling of Mine Supplies.** of President, said: "In July last as a result

in the request of the Minister of Munitions in England, the whole of the stocks of imported supplies of goods for the mines were pooled, and the purchase of these was placed under a new department of the Chamber of Mines known as the Central Buying Department. Simultaneously a committee of mining material merchants was established, namely, the Merchants Standing Committee on Imported Mining Supplies, consisting of representatives of the Commercial Exchange and the Chamber, for the purpose of dealing with the same question. This committee was recognised by the Chamber of Mines as a medium of negotiation on all matters affecting mining supplies both with the Chamber of Mines and the Central Buying Department. The relationships between the mines and the merchants have, as a natural result, been very satisfactory from all points of view, and merchants have reason to be grateful to the Standing Committee for the efficient work it has done on their behalf. As an outstanding illustration of the usefulness of the committee the question of "profiteering" alleged by the Chamber of Mines against certain merchants may be mentioned, because it is undoubtedly a fact that but for the recognition of the committee and the steps it took to investigate the charges at the request of the Chamber of Mines, much dissatisfaction would have continued, and the proper appreciation from both points of view of the question which arose would never have been arrived at. As it was the committee investigated very carefully every complaint made, and then submitted the facts and conclusions to the Executive Committee of the Chamber of Mines, with the result that that body, after having all the details, stated that it was satisfied that in no case cited was an excessive profit charged by the firms who supplied the goods. In investigating the matter, instances were discovered in which the ownership of goods had changed more than once in the ordinary course of business before being eventually sold to the mines, and steps were at once taken by the Standing Committee to prevent this occurring in future as far as possible."

## TOPICS OF THE WEEK.

### THE REVISED MINING LEASES BILL.

THE Mining Leases Bill has suffered several changes in the Select Committee stage, and in its revised form seems to be a better measure. One or two of the new clauses do not fit into the Bill, but they may be removed before the latter becomes law. One of these clauses lays down penalties for any director or employee of a mining company who takes advantage of advance information for share-market purposes, but it is not clear that the clause has any practical significance. According to Reuter, the Government has decided that the Bill is to become law this session and as we go to press it is being debated in the Assembly. Mr. Malan, Minister of Mines, recently said it had been decided not to impose transfer duties on mining leases, as it was impossible to say beforehand what was the value of a mining lease. There was another reason, and that was that under the Transvaal Gold Law transfer duty was never paid on mining rights passed from the Crown to private individuals. As the transfer duties were always paid to the Provincial authorities the Government had now arranged to capitalise the leases and to pay to the Provincial Council 1½ per cent. of whatever the Government received out of the mining leases. In the new leases under the Mining Leases Bill it was proposed to insert a clause that the lessees should in future pay 1½ per cent. as rent charges, and this is now duly provided for in the Bill. Relief is also to be given in regard to claim licences, on the Rhodesian principle of allowing for work actually done. A most important part of the amendments is the new scale of profits to accrue to the Government under leases granted under the Bill. On 10 per cent. profits (expressed as a percentage of revenue) the Government will get nothing; on 12 per cent. the Government will get 2·6 per cent.; on 15 per cent. it will get 6·4 per cent.; on 20 per cent., 12·9 per cent.; on 25 per cent., 19·3 per cent.; on 30 per cent., 25·7 per cent.; on 35 per cent., 32·2 per cent.; on 40 per cent., 37·5 per cent.; on 45 per cent., 41·7 per cent.; on 50 per cent., 45 per cent.; on 55 per cent., 47·7 per cent.; on 60 per cent. or over, 50 per cent. The most important alteration to the original Bill is the following new clause 2, which is reproduced here in full:—

(1) Notwithstanding anything to the contrary contained in the principal Act, the holder of the mineral rights over any land may, when selecting his mynpacht, apply for a grant of a lease of the undermining rights of an additional area of the ground which is contiguous to the mynpacht and which will be worked in conjunction therewith. (2) The application for such additional area shall contain particulars of the reasons on which the application is based, of the proposed scheme of working the joint area, of the proposals for providing capital for the undertaking, and of the share of the profits which the applicant is prepared to pay to the Government in accordance with sub-section 6 in respect of the joint area. The application shall be transmitted to the Board for its consideration, and its recommendation, and the provisions of sub-section 4 of section three of this Act shall apply. (3) If after receipt of such recommendation the Governor-General is satisfied that owing to the natural features of the reef the grant of such a lease is necessary for the purpose of constituting the mynpacht, together with the additional area, a workable mining proposition, that the applicant has reasonable prospects of being able to provide capital adequate for the undertaking, and that the grant is advisable in the public interest, he may, before exercising his powers under section 26 of the principal Act relating to the proclamation of public diggings, grant to the applicant such lease, which shall set out terms to which the parties thereto have agreed. (4) When any lease is granted under this section only one area shall be selected as the mynpacht, notwithstanding anything to the contrary in sub-section (1) of Section 20 of the principal Act. (5) The lessee shall within three months after the grant of the lease, erect beacons and locate diagrams as if the area leased were ground pegged by him as claimed under the principal Act. (6) The grant of a lease under this section shall be subject to the conditions that the lessee shall pay to the Government in addition to taxation a minimum share of the profits to be derived from the working of the joint area, to be determined by reducing the amount specified in the first schedule to this Act in the same proportion as the joint area bears to the leased area, provided that the lease may prescribe a lower scale on condition that such lower scale is made subject to the approval of both Houses of Parliament. (7) If within one year from the date of the lease or within such further period as the Governor-General may allow the lessee is unable to satisfy the Minister that he has fulfilled the terms

of the lease, the Governor-General may (a) cancel the lease or (b) cancel the lease and the mynpacht brief and deal with the joint area with or without any other area under section three, provided that if the mynpacht area or any portion thereof is included in any lease under that section the person whose mynpacht brief has been so cancelled shall be entitled to a proportion of the Government's share of the profits (not including taxation) proportionate to the area so included. (8) The area for which the lease is granted together with the mynpacht selected shall be proclaimed a public digging as soon as possible after the grant of the lease. The lease where granted shall be deemed to be a lease under section three and the provisions of this Act shall apply accordingly. (9) The holder of the mineral rights in respect of any land may, instead of exercising his right to select a mynpacht under the principal Act enter into an agreement with the Governor-General whereby such holder will abandon such right of selection and become entitled either to a portion of the Government's share of the profits under sub-section (1) (b) of section 5 of this Act in any lease which the Governor-General may grant in respect of the undermining rights of such land or of adjacent land or to such other consideration as the Governor-General and such holder may agree.

The foregoing clause seems to be more advantageous to prospectors and mynpacht owners than the old one, and the Star's parliamentary correspondent says it is considered by members of the Select Committee that it will have highly beneficial effects in regard to the opening up of the Far East Rand. The debate on the Bill promises to be full of interest, and will doubtless bring out several other points of importance.

The novel clause in the Mining Leases Bill, referring to the responsibilities of directors and employees of mining companies is as follows: "Any person who (a) is a director or employee of a mining company formed for working any mineral

rights under the principal Act of this Act or is a director or employee of a company, association or person controlling such rights, and (b) in any such capacity possesses information affecting, or likely to affect, the value of any shares or debentures which have a market quotation, shall, if he is a party to any transaction for the purchase or sale of or any other dealing in such shares or debentures before such information has been disclosed to the public, be liable to pay damages at and to the suit of any person who can prove that by such transaction he has suffered pecuniary loss. The measure of such damages shall be the amount of such pecuniary loss."

\* \* \* \*

Speaking at the annual meeting of the Hume Pipe Co., Sir Percy Fitzpatrick described the prospects before the company as almost boundless. Before the war, upwards of 300,000 pipes were imported annually;

now they had to deal with the accumulation of four years, during which there had been no imports, and with the expansion in irrigation and development by large public bodies, of whom not less than 12 had applied for considerable water schemes. He did not like to make an estimate, but he believed these large requirements would run into seven figures. The £47,000 ordered by the Rand Water Board was the merest trifle, but if they gave satisfaction the ultimate order would be upwards of £300,000, and they could supply the pipes at prices which even pre-war prices for iron pipes could not knock out. Sir Percy then gave a list of undertakings lately carried out by Mr. Hume in Australia. He had supplied gas mains for Melbourne, and a hydro-electric pipe line in connection with the naval base at Sydney. These pipes had a diameter of 55 inches and stood an exceedingly high pressure, the price paid being £8 10s. per foot. They were turning out linings for wells eight feet in diameter, rolled off on a machine, and many other lines were developed, such as open guttering, tiles, tanks and silos. At present, however, his company would be content with ordinary pipes at standard sizes, as their problem was rather to get the men and machinery to overtake the orders waiting. They had agreements with the cement companies, who promised them all the material they wanted.

## THE YEAR WITH THE ROBINSON DEEP.

**Points from the Annual Reports of the Consulting Engineer and Mine Manager.**

In his annual report for 1917, Mr. C. D. Leslie, Consulting Engineer of the Robinson Deep, writes:—The following figures show the essential differences in the declared results of operations for the period as compared with those of the previous year:—Year ended 31st December, 1916: Tonnage milled, 632,200; recovery value per ton, 29s. 4'002d.; working costs\* per ton, 19s. 7'972d.; working profit per ton, 9s. 8'030d.; average number of natives employed, 4,609. Year ended 31st December, 1917: Tonnage milled, 561,400; recovery value per ton, 27s. 6'296d.; working costs\* per ton, 21s. 11'211d.; working profit per ton, 5s. 7'085d.; average number of natives employed, 4,069. Difference: Tonnage milled, -70,800; recovery value per ton, -1s. 9'706d.; working costs\* per ton, +2s. 3'239d.; working profit per ton, -4s. 0'945d.; average number of natives employed, -540. (\*Excluding renewals and replacements.) During the year the mine has been operated under exceptionally adverse circumstances. On account of the loss of No. 2 vertical shaft, as referred to in last year's report, the whole of the transfer of men, material and ore had to be undertaken through the eastern vertical shaft (No. 1), while underground operations had to be confined largely to the far western portion of the developed deep level areas rendered accessible by making use of No. 2 incline shaft from the 25th level downwards. The loss of time in transferring men, material and ore over long distances added very materially to the cost of working. Further difficulties were experienced towards the end of the year because the underground pumping plant became overloaded as a result of the excessive rainfall, and not only was development retarded but the already overloaded winding plant at No. 1 shaft had to be used for baling. The severe shortage of native labour necessitated an increase in the percentage of ore broken by machines resulting in greater stoping width with a consequent decrease in grade. The manager makes an important reference in his report to experiments conducted by him for the replacement of hand drilling by the Jack Hammer. His persistent work in this direction has at last met with appreciable success, and the use of the Jack Hammer for stoping is being largely extended. Expansion in agriculture and industries in this country is absorbing an increasing amount of native labour, and therefore the mining situation demands more attention than in the past to the mechanical replacement of natives. The sinking of the new vertical ("Chris") shaft is expected to be completed by the month of August, and by the end of the year the accessory stations, crosscuts and ore chutes should be finished. A connection has been made with the underground workings at the 35th level, from whence the hoisting of a proportion of the ore is expected to begin in the month of August. Sinking and timbering has been done rapidly and carefully, and the consulting mechanical engineer, Mr. A. C. Holtby, has overcome many difficulties in adapting material for the surface construction work in connection with this shaft. It was unfortunate that shaft sinking and construction had to be undertaken at a time of excessive cost, particularly as regards material. The ore reserve is estimated at 1,725,000 tons of afi, average assay value of 6'43 dwts. per mine ton, in addition to which there is partially developed ore estimated at 131,000 mine tons, to which has been assigned a value, from existing information, of 6'52 dwts. per ton. From this estimate of fully and partially developed ore has been excluded 175,000 tons of low-grade ore which cannot be worked at a profit under existing conditions. Most of the development work was done in the Boysens Estate, where the grade of ore exposed is above the average of the present reserve and indicates some improvement for this year. For safety and ventilation, as well as to secure better transport facilities, the Main Reef Leader drives are being carried well in the footwall and do not expose ore, so that, in future, the ore reserve in this reef will have to be estimated from exposures in boxhole raises and in reef connections for stoping be-

tween levels. The rate of development should be increased as new points of attack become available on each of the four levels to be advanced off the "Chris" shaft. The manager, Mr. J. J. Wessels, and the members of his staff have been burdened with anxiety and difficulties during the whole of the year under review, and the superintendent, engineer and myself desire to express our appreciation of their loyal service and their unremitting attention to their duties.

### MANAGER'S REPORT.

The manager, Mr. J. J. Wessels, writes, *inter alia*:—During the period under review numerous difficulties have had to be contended with which have adversely affected operations and working costs, one of these being a shortage of native labour which has been of double weight since with the absence of available hoisting facilities ore has to be transported from great distances. Also owing to the present high working costs several stopes have fallen under the payable limit of work in which has been discontinued for the time being, thus sources of ore supply have been more limited. The "Chris" shaft on the 31st December last had been sunk to a total depth of 3,417 feet; during 1917 an average rate of sinking of 165'5 feet per month was maintained, including stoppages for changing over to the permanent hoisting plant, and others brought about by difficulties encountered in the shaft; excluding these, the rate was 180'5 feet per month. It is estimated that the "Chris" shaft will connect with the 3,500 feet level towards the end of February this year, while arrangements will be completed to hoist ore from that level towards the end of July. The whole shaft layout, including ore bins, should be completed by the end of the year. The mine has been severely handicapped by an excess of water entering its workings, and arrangements are being made whereby it is hoped that there will be a curtailment in the amount of such water. During the year an improved method of stoping was evolved, this being attained by the successful adaptation of the Jack Hammer machine to stoping. This has proved a great advance on other stoping methods in regard to the saving of native labour, and is much more economical in explosives than reciprocating machine stoping. The results for the six months ended 31st December, 1917, when an average of 28'5 Jack Hammers were in continuous use for stoping, show that the average fathomage per Jack Hammer was 12'4 per cent. higher than that per reciprocating machine, the latter using approximately 100 per cent. more labour per machine shift and 86 per cent. more explosives per fathom broken. The reciprocating machine used 102 per cent. and the Jack Hammer only 9 per cent. more explosives per fathom than was employed in breaking rock by hand labour. During the period each Jack Hammer, employing an average of 1'25 natives, did the equivalent fathomage of seven hammer boys, so that the replacement by Jack Hammers of the 37,000 to 62,000 hammer boys employed on the Witwatersrand mines at various periods would save for other work a large percentage of the present native labour force of the mines of the Witwatersrand. There would be a considerable additional saving in native labour if reciprocating machines were replaced by Jack Hammers. Dust tests showed that stopes operated by the Jack Hammer (which cannot be worked without water) and stopes operated by hand labour, were about equal, while the stopes where the reciprocating machines were used were about 100 per cent. higher in mineral dust.

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## THE POSITION OF THE SAKALAVA MADAGASCAR PROPRIETARY OIL FIELDS.

### Issue of Explanatory Report on the Outlook for the Fields.

In their report for the quarter ending 31st March, 1918, the directors of the Sakalava Madagascar Proprietary Oil Fields, Ltd., state that this issue of the quarterly report of the company has, of necessity, been somewhat delayed, owing to the fact that the board had advice that Mr. Nichols, the manager, was due early in April, and desired to have his reports and information so as to be able to give the latest information to shareholders. It is common knowledge that various rumours, of a highly optimistic nature, have been in circulation, and statements have been made concerning matters of which the board knew nothing. The parties who have circulated these rumours cannot be traced, but shareholders must be aware that no information has ever been given by the board that would justify, in any way, such rumours being promulgated. The policy of the present board has been, and will continue to be, to issue to shareholders only actual facts, uncoloured by unjustified optimism and leaning rather to conservative estimate, and shareholders may rest assured that any important information that may be received will be communicated to them either by a special report or the calling of an extraordinary general meeting. The board deprecates any rumours being circulated that may cause elation to be followed by a reaction. The work on the fields, since the last report was issued, has been hampered to a much greater extent than was at first anticipated would be the case, owing to the wreck of the "Bagdad." It was hoped that the "Bagdad" had been salved and taken to port, that the shipment of tools and material and boilers would be speedily effected; this, however, was not the case. Transhipment of cargo to Majunga has taken months, and there was a further delay owing to the cargo having to be surveyed by Lloyds' surveyor, for the purpose of a general average, which had been declared on the vessel. The tools and material, with one or two minor exceptions, have reached Benjavilo, but owing to the state of the river equipment, which is now undergoing repairs, it will be some weeks before transportation can be effected. There have been no steamers from here to Madagascar since the last quarterly report was issued; there has been no opportunity to secure passage for the blacksmith tooldresser, who arrived from America some weeks ago, of for further shipments of cement and materials now lying in Durban. The "Persepolis," however, has arrived from Madagscar during the last few days, and is expected to return again at an early date. The consequence of these delays has been to check boring operations. No. 5 hole reached a depth of 620 feet, but was hampered by an inflow of water which the manager considered must be shut off by the use of cement. As this had been delayed he decided, in order to preserve the value of the boring operations, that there was no course but to close down for the time being, and occupy the men in getting everything in order for carrying on boring operations when he was fully equipped; also in making arrangements to tackle the river transport work on proper lines to obviate, to a great extent, the difficulties of getting material up the river. Though actual drilling operations have been delayed, it must not be considered that the time has been lost. Mr. Nichols, the manager, is strongly in favour of boring, in addition to No. 5, a bore hole on the flank of what he describes "as a favourably located anticlinal fold," and has advised the erection of the large steel rig on this location, the site will be known as "No. 6." He has received the approval of the board and has cabled to the fields instructing the men to proceed at once with this work. Owing to the lack of boiler power this has not been practicable until now, but as the boilers are at Benjavilo, and he anticipates getting them on the site in the near future, he proposed to start at once using the boilers and plant at No. 5, while awaiting the arrival of the necessary cement to proceed with

that borehole. He further anticipates now being able to run the drill on double shifts, that is, night and day. The directors are very pleased with the work Mr. Nichols has done and with his reports, and they have passed a resolution expressing their appreciation of the results of his efforts. As to his opinion of the fields and the prospects in view, the board prefer to quote his own statements without any comment, save to say they are of opinion that Mr. Nichols weighs his words well, and is too conscientious to make any statement that would in any way be too optimistic.

#### EXTRACT FROM MANAGER'S REPORT.

"In order to utilise the material now at hand on the field, as well as to furnish employment for the drillers and helpers, and to offset the handicap occasioned by the scarcity of shipping and the consequent shortage of the necessary cement for the shutting off of water which has been encountered in No. 5 bore, I recommend that operations be commenced on another site pending the arrival of the necessary supplies. After a careful study of the territory adjacent to the present operations, I have made a location, to be known as 'Bore No. 6.' This location has been made on the flank of a plainly defined anticlinal fold, which dips from 3 to 5 degrees east-west. The area of this flank and its position in relation to the adjoining ground is favourable to the accumulation of a large body of petroleum under pressure. A line of seepages extend north-south and parallel to this anticlinal, which is slightly antisymmetrical, and the location chosen is at a sufficient distance from them to insure the liquidity of the oil which the relative position of these seepages to the structure indicates should be encountered. The presence of these seepages is the most reliable indication which is known, of the existence of petroleum in commercial quantities, and warrants thorough prospection. While I consider the standard steel drilling rig the best and most practicable machinery owned by your company, owing to the present state of the river transport it is advisable to utilise the Star drilling machine now employed on No. 5 bore, erecting the steel rig when the boilers at Benjavilo have arrived at the site." Mr. Nichols has thoroughly inspected the river and the conditions prevailing regarding transportation and also the material of the company lying at Benjavilo. He reports that the material is in good condition and that the steam boat belonging to the company can, by alteration (which he is now effecting with the material and labour at his disposal), be made serviceable for river transport, and that he can see his way to make great improvement in connection with any arrangements that have existed in the past in regard to the conveyance of the company's goods up the river. In reporting on general conditions in Madagascar, Mr. Nichols is of opinion that a French subsidiary company should be registered in France. This procedure, he states, is advisable in order to comply with the French mining laws, and your directors are considering ways and means to comply with this recommendation.

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## PROGRESS ON BARNATO MINES.

### A Review of the Latest Development Results—Many Satisfactory Features.

THE Johannesburg Consolidated Investment Company, Ltd., has issued their mining companies' directors' reports for the quarter ended 31st March, 1918, from which we take the following:—

#### CONSOLIDATED LANGLAAGTE MINES.

The abnormal rains which were experienced during January and February resulted in a considerable curtailment of the profits on a majority of the mines on the Rand. Fortunately, the Consolidated Langlaagte, although situated in the centre of the storm zone, escaped more lightly than its neighbours, and the tonnage milled shows a reduction of only 700 tons as compared with the previous quarter. Working costs were 5d. per ton lower, but the grade was affected to the extent of 1s. 3d. per ton, and the gross profit shows a drop of £5,201. The west incline shaft was sunk 42 feet to a total depth of 3,752 feet. The development footage sampled totalled 2,449 feet, and gave the following results: Payable, 1,074 feet, having an average value of 31·4 dwts. over 14 inches of reef; unpayable, 1,375 feet, having an average value of 7·9 dwts. over 18 inches.

#### GINSBERG GOLD MINING COMPANY.

The flooding of the mine, which was referred to in the last quarterly report, increased with the prolonged heavy rains which occurred in the first two months of the year, and mining operations were carried on under great difficulties. The tonnage crushed showed a decrease of 6,530 tons, and working costs were 2s. 7d. per ton higher. As a result a small loss has to be recorded for the quarter. No development footage was accomplished.

#### GLENCAIRN MAIN REEF.

There was a decrease of 7,750 tons in the quantity of ore milled, and working costs were 1s. 2d. per ton above those for the previous quarters. This was entirely due to the heavy rains and the resultant flooding of the bottom levels. The recovery value showed an improvement of about 10d. per ton, and the gross profit was £1,504 less than that for the preceding three months. Of the total ore mined 52,473 tons were obtained from reclamation and other sources, and the ascertained ore reserves were depleted by 8,429 tons.

#### GOVERNMENT GOLD MINING AREAS.

The expenditure on capital account amounted to £13,515. The quantity of ore milled showed an increase of 10,100 tons as compared with the previous quarter; the grade and working costs showed little alteration, and there was an increase in the gross profit of £3,885. The development footage sampled totalled 5,420 feet, and gave the following results: Payable, 3,820 feet, having an average value of 14·4 dwts. over 47 inches of reef; unpayable, 1,600 feet, having an average value of 3·1 dwts. over 40 inches. The payable ore reserves were increased by over 370,000 tons during the quarter, and now stand at 7,390,000 tons. A start has been made with the excavations for the extension of the reduction plant, and practically the whole of the material required for the extension has been purchased.

#### LANGLAAGTE ESTATE.

The expenditure on capital account amounted to £6,728. This mine suffered severely from the heavy rains which fell in January and February. The downpour which occurred on the evening of the 14th February carried away one of the company's dams, and flooded the lower levels of the mine to an extent from which it has not yet recovered. Heavy expenditure had to be incurred in baling the water, development was practically stopped, and mining was restricted to the upper levels. The tonnage crushed was less than that for the previous quarter by 9,340 tons, and working costs increased by 2s. per ton. The recovery value was 1s. 7d. per ton higher, so that the gross profit was only reduced by £5,848. The Hebbard incline shaft was sunk 4 feet to

a total depth of 2,983 feet. The development footage sampled totalled 1,305 feet, and gave the following results: Payable, 717 feet, having an average value of 18·6 dwts. over 25 inches of reef; unpayable, 588 feet, having an average value of 4·4 dwts. over 17 inches.

#### NEW PRIMROSE.

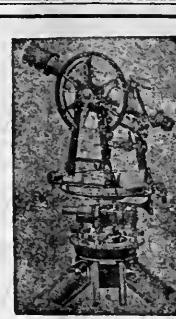
The quantity of ore crushed was 1,300 tons less than that for the previous quarter. Working costs were 9d. per ton higher, and the grade showed a drop of 6d. per ton. The gross profit was £3,614 less than that for the preceding three months. The reduced profit was largely due to the heavy rains. The development footage sampled totalled 211 feet, and gave the following results: Payable, 139 feet, having an average value of 7 dwts. over 35 inches of reef; unpayable, 74 feet, having an average value of 3·6 dwts. over 38 inches.

#### NEW UNIFIED MAIN REEF.

The heavy rains in the middle of February flooded the mine, and no rock could be hoisted for several days, during which time milling was entirely suspended. The mine is now getting over its water difficulties, and it is anticipated that a return to the normal position will be effected at an early date. As compared with the previous quarter, the tonnage crushed shows a decrease of 5,210 tons, and working costs an increase of 1s. 8d. per ton. The grade was also affected to the extent of about 7d. per ton, and the gross profit shows a reduction of £5,406. The development footage sampled totalled 205 feet, and gave the following results: Payable, 100 feet, having an average value of 27·4 dwts. over 15 inches of reef; unpayable, 105 feet, having an average value of 8·6 dwts. over 13 inches.

#### RANDFONTEIN CENTRAL.

The expenditure on capital account amounted to £79,152, and debenture interest £38,106. This company suffered more severely than any of the other mines of the group from the heavy rains. This was largely due to the extensive outcrop workings which were carried out in the past, and which gave the floods every facility to find their way into the lower workings. Pumping and baling charges have been extremely heavy, and mining operations were considerably curtailed. As compared with the previous quarter, the tonnage crushed showed a decrease of 55,960 tons, and working costs were 2s. 2d. per ton higher. There was a slight improvement in the grade, but the gross profit was reduced by £54,072. The shaft sinking accomplished was as follows: No. 2 sub incline, footage sunk 7, depth at 31/3/18, 1,650 feet; No. 3 sub incline, footage sunk 26, depth at 31/3/18, 1,738 feet; No. 4 sub incline, footage sunk 34, depth at 31/3/18, 1,553 feet; No. 5 sub incline, footage sunk 48, depth at 31/3/18, 1,423 feet; north vertical shaft, footage sunk 261, depth at 31/3/18, 473 feet; south vertical shaft, footage sunk 379, depth at 31/3/18, 676 feet. The development footage sampled totalled 11,868 feet, and gave the following results: Payable, 9,883 feet, having an



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average value of 23·3 dwts. over 17 inches of reef; unpayable, 2,485 feet, having an average value of 6·6 dwts. over 25 inches.

#### VAN RYN DEEP.

The expenditure on capital account amounted to £5,487. The tonnage crushed was less than that for the previous quarter by 3,860 tons, and working costs showed an increase of about 7d. per ton. There was an improvement in the recovery value of 1s. per ton, and the gross profit was £3,927 less than that for the preceding three months. The development footage sampled totalled 1,150 feet, and gave the following results: Payable, 1,045 feet, having an average value of 31·6 dwts. over 24 inches of reef; unpayable, 105 feet, having an average value of 11·2 dwts. over 13 inches. Good progress has been made with the addition to the reduction plant. The excavations are completed, and the building of the foundations has been put in hand. All the plant and material necessary for the extension have

been secured, and its erection will be commenced at an early date.

#### WITWATERSRAND.

The expenditure on capital account amounted to £1,924. There has been a slight improvement in the native labour supply, and if this is maintained an increase in the tonnage milled may be anticipated. The quantity of ore milled was 585 tons more than for the previous quarter. The pumping and baling charges were very heavy owing to the abnormal rains, and working costs were 1s. 4d. per ton higher. This, combined with a drop in grade of 1s. per ton, caused a reduction of £12,498 in the gross profit. The southern incline shaft was sunk 14 feet to a total depth of 2,808 feet. The development footage sampled totalled 1,400 feet, and gave the following results: Payable, 660 feet, having an average value of 11·3 dwts. over 44 inches of reef; unpayable, 740 feet, having an average value of 3·3 dwts. over 39 inches.

## SALARIES AND WAGES OF WHITE MINE EMPLOYEES IN 1917.

The salaries and wages of white mine employees for the year 1917 was as follows:—

#### TRANSVAAL—

Staff	£1,480,181
Other White Employees	7,926,429
Totals	£9,406,610

#### CAPE—

Staff	£131,975
Other White Employees	634,151
Totals	£766,126

#### ORANGE FREE STATE—

Staff	£39,721
Other White Employees	135,442
Totals	£175,163

#### NATAL—

Staff	£60,455
Other White Employees	151,143
Totals	£211,598

#### UNION OF SOUTH AFRICA—

Staff	£1,712,882
Other White Employees	8,847,165
Totals	£10,559,497

Year 1916	£9,657,060
Year 1915	8,804,983
Year 1914	9,145,864
Year 1913	10,269,089
Year 1912	10,418,272
Year 1911	10,636,252

## PERSONAL.

Major Sir Abe Bailey's services have been accepted by the War Office for the Western Front.

\* \* \* \*

Mr. A. P. Rouillard, Manager of the Durban Roodepoort Deep, is leaving for England to offer his services.

\* \* \* \*

Mr. F. C. Sturrock has been elected President of the Chamber of Commerce, and Mr. C. H. Leake and Mr. R. Niven Vice-Presidents.

\* \* \* \*

Major H. V. Wells, Beacon Inspector on the West Rand prior to the war, has been killed in action. This is the third Imperial officer of the Mines Department, Krugersdorp, who has made the supreme sacrifice.

#### Manicaland Output.

The mineral output of the Territory of the Companhia de Moçambique (Manicaland) for the month of March, 1918, is as follows:—Alluvial: Gold won (fine), 561 ozs. 14 dwts. 5 gra.; cubic metres dredged, 70,000; value, £2,328 10s. 5d. Copper: Copper declared, 22·5 tons (approximate); value, £2,250.

#### Dutch Embargo on Tin.

Reuter at Washington says Holland has placed an embargo from the Dutch East Indies of tin and tin ore. The United States must henceforth rely on Bolivia for supplies.

#### Swaziland Tin.

The following are the results of the operations of this company for the month of March, 1918: Concentrates recovered, 39·35 long tons; estimated profit (taking tin at £300 per ton), £3,936; adjustments in respect of previous shipments, £769; total estimated profit, £4,705.

#### Latest Metal Prices.

The following particulars of prices of certain minerals in the United Kingdom on the dates indicated have been cabled by the Trades Commissioner for the Union in London: Standard metallic copper, for cash, 16th March, 1918, £100 per ton; 30th March, 1918, £110 per ton. Wolfram ore, per unit for 65 per cent. grade, 16th March, 1918, 60s.; 30th March, 1918, 60s. Corundum (1st grade), c.i.f., 16th March, 1918, £17 to £20 per ton; 30th March, 1918, £20 to £25 per ton.

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## THE COLOURED LABOUR WAGE BILL OF THE MINES IN 1917.

THE total wages earned during the year 1917 per coloured person working on the mines was as follows:—

TRANSVAAL—

Asiatics	£35,927
Asiatics, females	—
Natives and others	6,554,690
Natives and others, females	942
Total	£6,591,559

CAPE—

Asiatics	£514
Asiatics, females	—
Natives and others	506,985
Natives and others, females	9,325
Total	£516,824

ORANGE FREE STATE—

Asiatics	—
Asiatics, females	—
Natives and others	£169,119
Natives and others, females	81
Total	£169,200

NATAL—

Asiatics	£93,091
Asiatics, females	629
Natives and others	248,099
Natives and others, females	64
Total	£341,883

UNION OF SOUTH AFRICA—

Asiatics	£129,532
Asiatics, females	620
Natives and others	7,478,898
Natives and others, females	10,412
Total	£7,619,466

Year 1916	7,848,601
Year 1915	7,074,692
Year 1914	7,372,414
Year 1913	8,198,542
Year 1912	8,505,493
Year 1911	8,181,096
June-December, 1910	4,548,540

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Shovels.

Seaming Twine.

Treacle Sugar.

## THE WEEK IN THE SHAREMARKET.

### Steady Improvement—Advance of the Modderfontein Group.

On Saturday morning there was very little change in prices. The market was steady, with improvements in Modder Deep, Government Areas, Geduld Props and Zaaiplaats. Sakalavas at 7s. 6d. were a weak feature and have been a great disappointment, especially to those who, led away by wild-cat rumours, gave 19s. for them quite recently. Monday's call was a mere formality, only ten stocks being dealt in. With the exception of a sale of Government Areas and another of Springs, the rest of the dealings was confined to unimportant goods. Prices were practically unchanged, the only alterations being slight advances in Geduld Props and tin stocks. The market slowly crept forward during the day and closed firm. The opening on Tuesday was marked by an advance in Zaaiplaats, which, closing overnight at 18s. 3d., recorded a first sale at 18s. 3d., rising to 19s. At the Call prices were firm with a further advance in Geduld Props. The Modder East section continues to be out of favour, but without any appreciable change in price. African Farms and Leeuwpoorts were in better demand. The tendency during the day was again upward, except in Zaaiplaats, their rapid advance of the morning producing an excess of sellers. On Wednesday the market opened with active buying of Government Areas, Zaaiplaats and Lace Props, all at advanced rates. Prices were well maintained at the call. Tin stocks, on which a big appreciation, on the news of the Dutch embargo on exports, might have been expected, were no better than the general run of other stocks which followed the upward trend of the market, though Swaziland advanced 2s. on the last buying quotation. There was very little doing in Modder stocks, but Modder Easts advanced a few pence. Anglo-Americans and the New Areas are decidedly out of favour. In the course of the day the whole market made a further advance closing strong, with the exception of Zaaiplaats. The feature on Thursday morning was a run on Lace Props, which touched 15s. 6d., but subsequently lost 6d. Zaaiplaats were weaker at 18s. 6d. At the call the overnight's improvement was maintained and further gains were made by the Modderfontein group and City Deep. A sale of Modder Easts went through at 20s., but it was evident that this was the figure at which the tap would be turned on again. The following dealings in unlisted stocks took place during the week:—Sales: South Van Ryns, 13s. 6d. to 14s. 6d.; Sakalavas, 8s. to 10s.; Henderson's Options, 1s.; Phoenix, 11d.; Monteleos, 38s. 6d.; S.A. Alkalies, 66s. 3d. to 67s. 6d.; Invictas, 20s.; Macganane Diamonds, 20s. Hume Pipes, 41s. Henderson's Estates, buyers 5s., sellers 5s. 3d.

After the call on Thursday Modder Easts advanced to 20s. 3d., the three-year options to 6s. 7d., and the four-year to 7s. 6d., but persistent selling soon knocked them back. In the afternoon, Swazi Tins were sold at 30s. The call on Friday was fairly active, Modder Bs. making a notable advance. The following is the record of changes in prices: Sales: African Farms, 9s. 9d.; Consolidated Mines Selections, 27s. 6d.; Daggafonteins, 24s.; Geduld Props, 39s. 6d.; Lydenburg Farms, 10s. 3d.; Lace Props, 14s. 9d.; to 14s. 6d.; Modder Bs., £7 17s. 6d. and £7 18s.; Modder Easts, 19s. 7d.; New Eras, 10s. 3d.; New Areas, 18s. 3d.; Sub Nigels, 24s.; Springs, 69s.; Van Ryn Deep, 71s. 3d.; Wit. Deep, 8s. 6d. ex London; Zaaiplaats, 18s. 1d. and 18s. Buyers and sellers: Anglo-Americans, 32s.—33s.; Brakpans, 90s. buyers; Daggafontein Options, 7s. 6d.—8s.; East Rands, 3s. 6d.—4s.; Glynn's Lydenburgs, 17s. 3d.—19s.; Government Areas, 78s. 3d.—78s. 6d.; Modder East Options, three-years, 6s. 2d.—6s. 4d.; four-years, 7s. 3d.—7s. 6d.; New Modders, £22 12s. 6d.—£23; Pretoria Cements, £5 17s. 6d.—£6; Rand Selections, 91s. buyers; Swazi Tins, 29s.—30s.; S.A. Lands, 6s. 4d.—6s. 6d.; Village Main, 11s. buyers; Wit. Deep, 8s. 9d.—9s.

	Fri.	Sat.	Mon.	Tues.	Wed.	Thurs.
	26th.	27th.	29th.	30th.	1st.	2nd.

African Farms . . . . .	9 6*	9 6*	9 7	9 9*	9 6*	10 0
Anglo-Amer. Corp. . . . .	31 0*	30 3*	—	30 6*	30 6*	31 0*
Apex Mines . . . . .	7 0*	7 0*	7 0*	7 2*	7 4*	7 6*

	Fri.	Sat.	Mon.	Tues.	Wed.	Thurs.
	26th.	27th.	29th.	30th.	1st.	2nd.
Aurora Wests . . . . .	—	—	—	—	—	12 6†
Bantjes Cou. . . . .	—	—	—	2 9*	2 10*	2 10*
Brakpan Mines . . . . .	—	83 0*	83 0*	84 0*	84 0*	85 0*
Breyten Colls. . . . .	11 6*	—	11 0*	10 0*	10 0*	—
Bushveld Tins . . . . .	0 11†	0 11†	1 0†	0 11†	0 11†	0 11†
Cinderella Cons. . . . .	—	2 0*	—	—	—	—
City & Suburbans . . . . .	13 6*	13 6*	13 6*	14 0	13 6*	13 6
City Deep. . . . .	51 6*	52 0*	52 0*	53 0*	55 0*	57 0
Cloverfield Mines . . . . .	8 6*	7 9*	8 0*	8 1*	8 2*	8 7*
Clydesdale Collieries . . . . .	15 0*	—	15 0*	15 0*	—	15 0*
Concrete Construct. . . . .	5 6†	—	5 3†	3 9*	—	4 0*
Con. Investments . . . . .	20 0†	—	—	—	—	—
Con. Langlaagte . . . . .	16 0*	16 0*	16 0*	16 0*	16 0*	16 0*
Con. Main Reefs . . . . .	12 6*	12 6*	12 6*	12 6*	12 6*	13 0
Con. Mines Select. . . . .	—	25 6*	—	25 0*	26 0*	26 0*
Coronation Colls. . . . .	—	—	32 0*	—	—	—
Coronation Frees. . . . .	1 3	1 3*	1 4*	1 6	1 4*	—
Crown Diamonds . . . . .	3 6*	3 6*	5 0†	4 0†	4 0†	—
Daggafontein Mines . . . . .	22 6*	22 6*	22 6*	22 9*	22 9*	23 0*
Do. Options . . . . .	7 0*	7 3*	7 0*	7 0*	7 3*	7 3*
Durban Rood. Deep. . . . .	10 0	10 0†	10 0†	10 0†	8 6*	10 0†
East Rand Coals . . . . .	—	2 0*	2 0*	2 1*	2 0*	2 1*
East Rand Deep. . . . .	0 10*	1 0†	0 10*	1 0†	0 10*	0 11
East Rand Minings . . . . .	—	15 0†	16 6†	—	16 6*	15 6*
East Rand Props. . . . .	3 6*	3 9	3 0*	—	3 0*	3 2*
Eastern Golds . . . . .	1 1	1 1*	1 1*	—	1 1*	1 2†
F. Smith Diamonds . . . . .	2 9	2 9*	2 9*	2 9*	2 9*	2 9*
Glencairns . . . . .	1 6†	1 6†	—	1 6†	—	1 6†
Glencos Collieries . . . . .	—	9 0†	—	9 0†	9 0†	8 6†
Glynn's Lydenburgs . . . . .	16 6*	15 0*	16 6*	16 6*	—	16 6*
Government Areas . . . . .	71 0*	71 6	71 3	71 3*	72 0	73 0
Jupiters . . . . .	4 9†	4 0*	4 6*	4 6*	4 6*	4 6*
Klerksdorp Props. . . . .	—	—	1 9*	1 9*	1 9*	—
Knight Centrals . . . . .	3 6†	2 9*	3 0*	3 0*	3 1*	3 1*
Lace Props. . . . .	13 9	13 9	13 3*	13 3*	14 10	15 0
Leeuwpoort Tins . . . . .	16 9*	20 3*	21 6	22 6	22 8	22 0
Lydenburg Farms . . . . .	10 0	9 10*	10 1	10 1*	10 7*	10 3*
Main Reef Wests . . . . .	2 7*	2 7*	2 7*	2 7	2 7*	2 7*
Middelvlei Estates . . . . .	—	1 0*	—	1 3†	—	—
Modder B. . . . .	145 0*	146 0*	146 0*	146 0*	—	153 0*
Modder Deep. . . . .	138 9*	141 6*	141 6*	141 6*	142 0*	144 0*
Modder Easts . . . . .	18 6*	18 6	18 3*	18 6	18 9	20 6
Do. Opt. (3 yrs.) . . . . .	5 9*	5 9*	5 8*	5 6*	5 9*	6 0*
Do. Opt. (4 yrs.) . . . . .	7 0*	7 3	7 1	7 0*	7 2*	7 8
Natal Nav. Colls. . . . .	19 0*	19 0*	20 0*	—	20 0*	20 0*
National Banks . . . . .	—	—	—	£133A	—	—
New Boksburgs . . . . .	—	—	1 1*	—	—	1 3*
N. Eland Diamonds . . . . .	31 0†	31 0†	30 0*	31 0†	30 6†	31 0†
New Era Cons. . . . .	9 9*	9 9*	9 9*	9 10*	10 0*	10 0*
New Geduld Deep. . . . .	5 9*	—	—	6 0†	6 0†	6 0†
New Heriots . . . . .	21 3*	22 0	21 3*	21 3*	21 0*	21 0*
New Kleinfonteins . . . . .	13 3*	13 3*	13 3*	13 0*	13 0*	13 3
New Modders . . . . .	£222*	£211*	£222A	£217*	£222*	£222*
New State Areas . . . . .	18 0*	18 0*	18 0*	18 0*	18 1*	18 6
New Unifieds . . . . .	5 3*	5 3*	5 3*	5 3*	5 3*	5 3*
Nigels . . . . .	3 0*	3 3	3 3*	3 3*	3 3*	3 3*
Nourse Mines . . . . .	17 0*	17 6*	17 0*	17 0*	17 3*	17 0*
Pretoria Cements . . . . .	117 6*	117 6	117 6†	117 0*	117 0*	116 6*
Princess Estates . . . . .	2 0*	—	1 10*	1 10*	2 3†	1 10*
Rand Collieries . . . . .	3 0†	—	—	—	—	—
Rand Klips . . . . .	8 9*	9 0†	9 0†	8 9*	8 9*	9 0*
Rand Nucleus . . . . .	—	1 2*	1 2*	1 4†	—	1 3
Rand Select. Corp. . . . .	89 0*	89 0*	89 0*	89 3*	89 6*	90 6
Randfontein Deep. . . . .	3 10*	3 9*	3 10*	3 10*	3 10*	3 10*
Randfontein Estates . . . . .	12 0*	12 0*	12 3*	12 3*	12 3*	12 3*
Roberts Victors . . . . .	—	7 0†	—	7 0†	8 0†	6 9†
Rooibergs . . . . .	13 0	13 3	13 3	13 0*	13 3	13 0*
Roodpoort Utds. . . . .	—	—	—	3 6*	—	3 6*
Simmer & Jack . . . . .	—	2 3*	2 6*	—	2 9*	2 6*
Simmer Deep. . . . .	1 9*	1 9*	1 11*	—	1 10*	1 10*
S.A. Breweries . . . . .	26 0†	26 0†	—	26 0†	—	27 0†
S.A. Lands . . . . .	6 1*	6 1	6 1	6 2	6 2*	6 3
Springs Mines . . . . .	66 3	66 0*	66 0	66 6*	67 6	68 9
Sub-Nigels . . . . .	24 3	24 3	24 3A	23 6A	23 9*	24 0
Swaziland Tins . . . . .	—	23 6*	24 0*	25 0*	27 0*	27 0*
Transvaal Lands . . . . .	13 0†	13 0†	11 0*	—	10 6*	—
Trans. G.M. Estates . . . . .	13 0*	13 0	13 0*	13 0*	13 0*	13 0*
Van Ryn Deep. . . . .	69 6*	69 6*	69 0*	69 9*	70 0	70 4‡
Village Deep. . . . .	18 0*	18 0*	18 0*	18 1*	17 9	17 6
Village Main Reefs . . . . .	10 6*	—	—	10 6*	10 6*	10 6*
West. Rand Estates . . . . .	2 4*	2 3*	2 3	2 6†	—	2 0*
Witbank Collieries . . . . .	—	—	—	—	48 0*	50 0*
Witwatersrands . . . . .	—	25 0*	—	—	—	—
Wit. Deep. . . . .	9 6†	8 9*	9 4‡	9 4‡	9 2*	9 3
Wolhuters . . . . .	5 0†	5 0†	5 0†	4 9†	4 0†	4 0†
Zaaiplaats Tins . . . . .	16 9	17 7	17 10	19 0	19 1	18 3
Union 5 per cent. . . . .	£1034*	£1034*	£1034	£1034	£101†	£101

\* Buyers. + Sellers. ^ Odd Lots. AA 50 Shares.

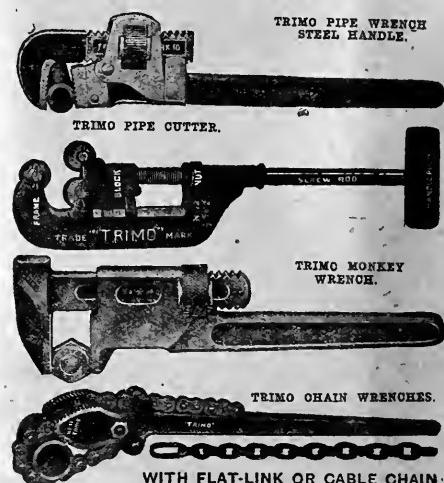
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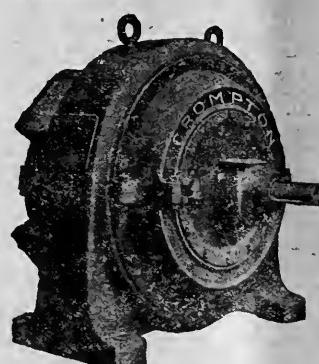
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ENGLAND.

Works: CHELMSFORD, ENGLAND.

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# Rhodesian Section.

## RHODESIAN MINERAL OUTPUT FOR MARCH.

We have received for publication from the office of the Rhodesia Chamber of Mines (Incorporated) the following detailed statement of the mineral output for the month of March, 1918, with comparisons and values:—

### MATABELELAND.

	No. of stamps. treated.	Tons	Yield.	Value.
			Ozs.	£.
<b>BULAWAYO DISTRICT.</b>				
Abercorn (W. J. Lane)	5	232	87·14	361
Do. (sands)	—	225	87·45	363
Angel (Angel Syndicate)	2	25	7·52	31
Annasus (Rhodesia, Ltd.)	3 1 P	320	276·04	1,144
Do. (sands)	—	163	37·97	157
Antelope G.M. (Rhod.), Ltd.	2BM2P1T	3,630	813·13	3,478
Do. (sands)	—	3,339	905·98	3,841
Baptistine (A. W. Wilson)	3	360	118·49	491
Berwick (Howe & Authors)	2	230	23·51	97
Boonami (R. Aserman)	5	270	110·06	450
Bryansky (R. Harris)	3	126	99·97	414
Bucks (H. S. Henderson), slags	F	—	36·32	145
Bushbick Mines, Ltd.	8N 2T	2,504	—	—
Do. (sands)	—	2,109	702·56	2,912
Do. (slimes)	—	1,300	—	—
Do. (concentrates)	—	286	—	—
Camp (Carson Mines, Ltd.)	5	675	81·81	339
Do. (sands)	—	440	51·26	213
Cam Stick (E. R. H. Lewis)	3	225	78·63	326
Do. (sands)	—	400	9·33	39
Cecil (Master Cecil Syndicate)	3	44	22·36	94
Cheviot (W. H. Robinson)	5	190	32·14	133
Comberton (J. H. Hubert)	5	580	62·76	260
Confidence (A. D. Hall)	5	236	55·85	231
Do. (sands)	—	660	16·71	69
Doneva (W. K. Early)	5	30	24·22	100
Do. (sands)	—	90	18·57	77
Durban (Durban Syndicate)	5	400	356·97	1,480
Do. (sands)	—	245	67·30	279
Eagle Hawk (T. Berwitz)	5	208	40·05	166
Farvin (H. S. Henderson), clean up	—	—	34·65	144
Fred (Trans. & Rhod. Synd.)	F	—	63·07	252
Do. (sands)	—	1,900	990·49	4,106
Germania (A. G. Hadingham)	2N 1P	910	543·79	2,254
Do. (concentrates)	F	—	71·75	294
Horn (Horn Reef Syndicate)	5	516	182·01	755
Do. (sands)	—	406	59·63	247
Jeffs (Jeffs, Ltd.)	3	—	22·63	94
Jessie (Jessie Tributors)	10 1 P	1,083	154·52	641
Do. (sands)	—	670	19·72	82
Jumpers (J. P. McCay)	5	352	76·23	316
Do. (sands)	—	196	15·13	79
Lochede (Lochede Syndicate)	5	600	45·56	193
Lone Hand (Armstrong, Furber and Alexander), adjustment April, 1917	—	—	—	5
Lonely Reef G.M. Co., Ltd.	20 3T	5,060	1,413·83	5,861
Do. (slimes)	—	5,060	2,900·20	12,033
Long John (Susanna Mines, Ltd.), clean up	—	—	18·65	77
Matabele Queen's Co., Ltd.	10 2P	969	299·15	1,240
Do. (sands)	—	225	72·33	300
Morning Star (J. G. Stewart)	2	44	12·88	53
New Eclipse (J. E. Stewart)	5 1 T	1,083	520·93	2,184
Do. (sands)	—	504	48·88	203
Newtonfontein (A. H. Newton)	3	380	216·90	889
Do. (sands)	—	280	37·80	157
Old Nio (R. Aserman)	5	338	98·06	406
Peach A. (Peach Syndicate)	10	502	137·17	570
Prince Olaf (K. Johnson)	5	274	151·57	628
Princess (C. A. Abbott)	2	96	12·48	52
Red Rose (F. C. Barrett), concentrates	5	245	39·71	165
Rewi (Intabanenda Syndicate)	5	260	135·98	564
Sabi (Fletcher & Williamson)	15	1,063	137·29	569
Do. (sands)	—	720	90·37	375
Sable A. (R. C. Boyes)	5	579	126·60	525
Do. (concentrates)	—	—	6·40	14
Slope 2 (Mrs. A. E. Beecroft)	5	641	61·57	255
Star (Eastern Queen) (Romola Nigel G.M. Co.), sands	—	170	19·42	81
Stella (W. Arbery)	5	110	26·09	108
Tartan (G. Leach)	5	140	49·24	200
Do. (sands)	—	200	10·13	42

	No. of stamps. treated.	Tons	Yield.	Value.
			Ozs.	£.
Teutonic (W. & A. Syndicate)	5 1 P	320	—	121·84 505
Umvoti (W. Arbery), clean up	—	—	—	37·54 155
Zephyr (W. E. Hunt)	5	250	—	42·12 175
Bulawayo district total				13,651·54 56,740

### GWELO DISTRICT.

Bell Reef Dev. Co., Ltd. (pannings)	—	—	5·99	25
Chicago 2 (A. Fraser)	3	195	148·62	616
Commonage (H. W. Gray)	1T	196	36·56	152
Connemara (Connemara Syndicate)	20 1C	4,302	139·14	577
Do. (sands)	—	3,292	421·26	1,746
Do. (slimes)	—	1,210	151·47	628
Conqueror (Leppington & McConkey)	5	250	82·72	343
Ceardas (Wolfshall Syndicate)	10	300	162·15	675
Dop (H. K. Havnar)	2	61	77·65	323
Emerald (F. M. Limscott)	5	275	26·79	111
Falcon Mines, Ltd.	26N 2T	14,103	3,067·88	13,219
(Copper & silver values not given.)	—	—	—	—
Fed Up (A. Malcolm), sands	5	204	106·27	441
Do. (Leppington & McConkey), sands	—	300	49·28	204
Gaike G.M. Co., Ltd.	5 1C 1T	3,279	782·44	3,319
Do. (sands)	—	3,856	644·18	2,732
Glen Arrock (Glen Arrock Synd.)	5	100	184·94	767
Glen Hume (Glen Hume Synd.)	10	1,420	136·14	647
Do. (sands)	—	1,040	60·21	249
Globe & Phoenix G.M. Co., Ltd.	40 12P	6,196	6,228·98	26,388
Do. (sands)	—	8,589	1,116·57	4,690
Do. (slimes)	—	1,248	176·23	740
Do. (September, 1917)	—	—	14	34·48
Gothic (H. W. Peard), sands	—	247	—	—
Do. (slimes)	—	260	168·19	667
Do. (clean up)	—	—	18·68	77
Do. (slags)	—	—	15·85	63
Ingondomo (F. C. Luxat), Feb.	H	125	40·33	167
Do. (sands), February	—	1,335	59·79	248
Mint (Shaw & Willings), February	2	2	1·23	5
Moss (W. M. James)	5	886	434·91	1,803
New Dunraven G.M. Co., Ltd.	5	800	73·18	303
Pedlow, T. (general clean up)	—	—	20·45	65
Royalist (J. Austin)	5	481	158·49	657
Second Trial (J. Rainsford)	2	17	8·43	35
Shark (J. G. Walter)	5	243	32·31	134
Veracity (L. R. Evans)	5	500	141·35	586
Do. (sands)	—	360	—	—
Do. (slimes)	—	100	41·54	185
Wanderer (Selukwe) G.M., Ltd.	4GR	7,790	495·58	2,054
Zazonkwe (Holmes & Urquhart)	5	800	—	—
Do. (sands)	—	590	72·80	302
Do. (slimes)	—	210	—	—
Meikle Bros. (proceeds copper plate)	F	—	1·25	5

Gwelo district total

15,702·09 66,136

'Phone 4673.

Box 3162.

**OSBORN'S  
"TITAN" MANGANESE  
CASTINGS.**

Write or 'Phone for Stock List.

**SAMUEL OSBORN & Co., Ltd., SHEFFIELD and JOHANNESBURG.**

## MASHONALAND.

	No. of stamps.	Tons treated.	Yield Ozs.	Value £.
<b>HARTLEY DISTRICT.</b>				
Acorn (Anzac Syndicate) .....	5	310	119.63	496
Do. (sands) .....	—	203	33.86	140
Alexandra (Alexandra Syndicate) .....	5	285	51.50	213
Do. (sands) .....	—	405	44.18	166
Baltimore and Virginia (P. A. Enke) .....	5	235	14.34	59
Cam and Motor G.M. Co., Ltd. ....	RP	10,649	3,314.04	14,032
Campania (S. C. Hooper) .....	3 1P	595	22.02	91
Do. (sands) .....	—	595	84.25	349
Challenge (J. E. F. Poultton) .....	2	201	43.79	182
Concession Hill (C. E. Simpson), gold crucible, etc. ....	—	—	1.34	6
Dalny 1W. (Macdonald & Sale) (slimes) .....	—	597	53.25	220
Dreadnaught (Dreadnaught Synd.), sands .....	—	500	22.59	94
Eiffel Blue (Willoughby's Cons. Co.) .....	10	1,197	454.20	1,886
Do. (sands) .....	—	650	26.40	100
Eileen Alannah Mining Co., Ltd. ....	12N 2T	4,320	277.91	1,152
Do. (sands) .....	—	4,172	902.97	3,746
Emney Ext. (E. G. Goodyer) .....	5	322	108.47	450
Do. (sands) .....	—	250	27.07	112
Etna & Tseseebe (Macfarlane and Clegham) .....	C	500	108.73	451
Glasgow Mines, Ltd. ....	5	138	78.76	327
Do. (sands) .....	—	78	27.32	116
Glencairn (Pickstone G.M., Ltd.) slimes .....	—	300	34.57	143
Golden Valley (Golden Valley, Ltd.) .....	10 1P	1,144	494.06	1,862
Do. (sands) .....	—	770	145.53	606
Heroine (A. E. Ward) .....	5	240	136.37	560
Do. (sands) .....	—	220	49.64	201
Just in Time (C. Somerset) .....	2	264	58.69	246
Kanyemba (Kanyemba Syndicate). Do. (sands) .....	10	490	154.71	641
Do. (sands) .....	—	340	54.75	227
Kelvin (Weslo Syndicate) .....	2	105	32.28	134
Mountain Dew (A. & J. Milne) .....	10	1,022	314.24	1,300
Mystery (W. T. Cutler), pannings .....	—	—	4.20	10
Owl (A. Rolfe) .....	10	1,041	259.83	1,070
Do. (sands) .....	—	823	—	—
Do. (slimes) .....	—	100	137.59	570
Pickstone (Pickstone G.M. Co., Ltd.), slimes .....	—	1,410	121.10	500
Pomposo (J. Knott) .....	2N	260	42.99	170
Rawson No. 2 (S. Hemlock), sands .....	—	620	90.66	377
Do. (sands) .....	—	502	48.50	200
Revie (Ambrose & Aitken) .....	5	770	99.04	411
Do. (sands) .....	—	577	28.26	117
Shepherds (Begbie & Jackson) .....	5	508	255.16	1,058
Do. (sands) .....	—	450	—	—
Do. (slimes) .....	—	150	164.02	680
Subi (M. Hellman) .....	2	50	17.80	74
Washington (I. J. Minaar) .....	5	300	215.22	892
Do. (sands) .....	—	220	22.78	95
What Cheer (H. Moser) .....	10	725	115.88	480
Do. (sands) .....	—	475	45.72	190
<b>Hartley District total</b>				
		8,915.51	37,271	

Hartley District total

## LONAGUNDI DISTRICT.

Angwa (F. L. Standen) .....	5	441	60.66	251
Eldorado Banket G.M. Co. ....	20 1C	3,940	1,516.31	6,436
Do. (sands) .....	—	2,042	—	—
Do. (slimes) .....	—	1,791	659.37	2,797
Gloria (Gloria Syndicate) .....	5	200	42.12	174
Gondwana (J. A. Morris), adjustment, April, 1917 .....	—	—	—	2
Lone Hill (Day & Hallward), clean up .....	—	—	6.24	26
Maggiemac (J. McMurdon) .....	5	550	108.20	449
<b>Lomagundi district total</b>				
		2,392.90	10 135	

## MAZOE DISTRICT.

Ancient Mariner (M. Friend) .....	2	30	24.98	104
Hopeful (Micky Syndicate) .....	2	168	40.03	166
Iron I (J. M. Laing) .....	5	1,120	119.18	494
Do. (sands) .....	—	280	29.62	123
Jumbo (J. Bloom) .....	5	400	115.53	479
Kingsley Hoard (A. S. Warwick) .....	5	—	11.45	48
Do. (sands) .....	—	—	5.66	23
Maori Chief (D. McLean) .....	5	290	137.80	571
Mitro (E. W. L. Noakes) .....	2	175	47.23	196
Do. (sands) .....	—	130	22.89	95
New Found (Est. L. H. Kelly), pannings .....	—	—	17.58	73
Poveril of Peak (G. G. N. Southey) .....	2	70	17.58	313
Promoter (F. C. Croxford) .....	C	3,301	75.54	313
Do. (sands) .....	—	2,300	90.85	376

	No. of stamps.	Tons treated.	Yield ozs.	Value £.
Rosa (R. Aserman) .....	—	—	—	—
Do. (sands) .....	—	—	—	—
Shashi 1 (C. Laland) .....	2	22	6.43	26
<b>Mazoe district total</b>				
			945.88	3,921

## SALISBURY DISTRICT.

Alpes (P. Zaffere) .....	5	112	159.69	663
Do. (sands) .....	—	119	41.26	171
Found A (Guy's Syndicate) .....	LM	390	113.35	478
Indicator (W. A. Hoole) .....	5	90	43.95	182
Joking and Euchred (Harrison and Drabble) .....	5	537	295.49	1,225
Do. (sands) .....	—	228	24.98	103
Joyce (Ellsmoor & Wyper) .....	5	370	64.08	265
New Full Back (New Full Back G.M. Syndicate) .....	2	63	17.56	73
Planet (Planet Mine Tribute) .....	5 1T	900	143.31	594
Do. (slimes) .....	—	900	185.92	771
Radnor 1 (Hyland & Phelps) .....	5 1P	1,475	253.46	1,051
Shamva Mines, Ltd. ....	56N 10T	54,198	3,459.13	14,567
Do. (sands) .....	—	24,473	—	—
Do. (slimes) .....	—	29,015	5,031.33	21,662
Trio (Trio Syndicate) .....	5	193	147.01	609
<b>Salisbury district total</b>				
			9,962.72	42,515

## UMTALI DISTRICT.

Duiker D. (T. P. Syndicate) .....	5	340	61.12	255
Do. (sands) .....	—	210	26.02	108
Gem (J. Buchanan) .....	5	912	12.81	53
Do. (sands) .....	—	912	125.19	518
Rezende Mines, Ltd. ....	40	4,500	1,007.02	4,273
Do. (sands) .....	—	2,902	396.77	1,683
Do. (slimes) .....	—	1,370	390.05	1,653
Do. (concentrates) .....	—	144	434.86	1,845
<b>Umtali district total</b>				
			2,454.14	10,390

## VICTORIA DISTRICT.

Cambrian (J. & D. Laing) .....	10	850	359.40	1,490
Do. (sands) .....	—	700	—	—
Do. (slimes) .....	—	150	133.25	552
Empress (S.A. Pros. & Con. Synd.) .....	8	1,180	108.68	451
Do. (sands) .....	—	800	—	—
Do. (slimes) .....	—	380	101.84	422
<b>Victoria district total</b>				
			703.17	2,915

F., Grinding Pan; B.M., Ball Mill; T., Tube Mill; H., Huntington Mill; G.R., Gates' Rolls; B., Ball Mill; Pn., Pneumatic Stamp; N., Nissen Stamp; C., Chilian Mill; R.P., Roasting Plant; F., Treated at Falcon Mine; W.M., Waterfall Mill; L.M., Lane Mill.

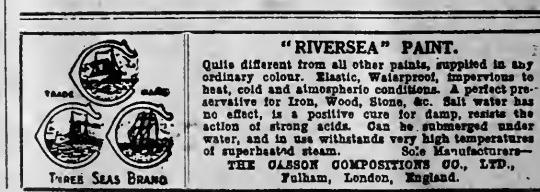
## SUMMARY OF PRODUCTION.

February, 1918 .....	.....	£232,023
March, 1918 .....	.....	£230,023
Decrease .....	.....	£2,000
March, 1917 .....	.....	£300,163
March, 1918 .....	.....	£230,023
Decrease .....	.....	£70,160

The base mineral production for the month of March, 1918, is valued at ..... £53,756 1 8

## TOTAL MINERAL PRODUCTION.

March, 1918 .....	.....	£285,292
February, 1918 .....	.....	£272,584
Increase .....	.....	£13,408
March, 1917 .....	.....	£420,218
March, 1918 .....	.....	£286,292
Decrease .....	.....	£133,296



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## THE WEEK IN THE MINING MATERIAL AND ENGINEERING TRADES.

### Commercial Exchange Quiet—Shipping Problematical—Cost of Buildings—Iron and Steel—White Lead and Oils—Country Trade Flat—Lime Advanced.

A FEW orders were placed on the Commercial Exchange on the turn of the month, for sorting up lines, not one of which however was of outstanding importance. The mines are using up their reserves to their minimum margins, also as previously stated, materials are dribbling through from Great Britain, Canada and America ordered through the Exchange anything up to twelve months ago. When these arrive at the coast, and subsequently Johannesburg, the chief buying office advises the merchants concerned, who arrange for the detailed deliveries, therefore the Exchange is not then concerned, having dealt with the orders originally. To obtain materials from America and Canada is more difficult than from Britain, on account of the shipping. However, the latter advantage cannot last, as the South African route has again been denuded of more ships. The recent consignments from Britain did not consist of any steel goods for mining purposes and very few wire ropes, as ropes cannot be had from that source unless through old orders and extra special permits. It is unanimously admitted that during the next few months the shipping question will be very troublesome and uncertain.

**TIMBER AND COST OF BUILDINGS.**

There is no alteration in prices this week, but it is anticipated that deals will be up another halfpenny per foot very shortly. There is a great demand for deals, and although there is no real scarcity at present, yet indications point in that direction, as the absorption is not being replaced from oversea. A timber merchant who knows the South African market intimately, anticipates that the demand for timber will be less especially if that and other building materials advanced. Up to recently the farmers have been purchasing freely, as they gradually became accustomed to the higher values, but of late the demand from that quarter has dwindled and no doubt will be further

checked if prices soar still higher. In addition to that, there is a demand for an advance in wages from the workmen, and now the chairman of a building society publicly deprecates the high values of property. With all this the merchant in question does not feel inclined to unduly increase his commitments in purchasing timber from the Baltic. In summarising the interview it was gathered that there was always a certain amount of urgent building absolutely necessary in Johannesburg, but anything like speculative building will not take place under the present weighty conditions.

**IRON AND STEEL.**

Imported iron has advanced 1s. per 100 lbs. on account of a prospective shortage owing to non-arrival of new supplies. A firm holding fair stocks of both South African and imported iron had a good month in April. Their sales included orders from Capetown, Rhodesia, Delagoa Bay and other places throughout the Union. It is said that it will be difficult to obtain supplies from Vereeniging for steel and iron during the next four or five weeks, as the mills are rolling tube-mill bars and rails. New steel plates are difficult to obtain, but this is causing little inconvenience because the second-hand plates are in plenty. In this

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Mine Boys, beg to inform the Mine and Compound Managers that despite the present high cost of flour, the price for this wholesome and very nourishing food has been practically kept at the pre-war level, thus making Macaroni the most economical food of the present times. Owing to the general increase of the prices of all foodstuffs Soup Macaroni has now been introduced into the native diet by a large number of Mining Companies, in whose Compounds the full content of the Boys has been gained by occasionally changing with Macaroni their somewhat monotonous menu.

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respect several big auction sales have taken place, including much iron and steel suitable for mining purposes. Owing to the absence of shipments from Canada, wire nails are scarce and prices gradually ascend, particularly when the different sizes become altogether inadequate for the daily demands.

#### WHITE LEAD, OILS AND COLOURS.

The white lead position is still acute, the wholesale price being 1s. 3d. per lb. and retail 1s. 6d. A Johannesburg importer received a cable this week from New York saying that his consignment of white lead had been shut out of a certain ship, which is very unfortunate. A May trade circular states: "The prices, as far as it can be, have been revised, but no guarantees are given from day to day. White lead—small supplies are arriving in Johannesburg this week. Linseed oil stocks are limited. The turpentine market is very firm. Large stocks of Muralo are due to arrive this month, also coal tar, and 185 bales of new wall-papers. New pattern books of 1918 are not yet available. Muralo, 4s. 6d. per 7 lb. packet. Hall's distemper, 6s. per 7 lb. tin. Calcite, 4s. 6d. per 7 lbs. A decent parcel of plate glass has recently arrived which will relieve the acute shortage—the price is the same, viz., 6s. 6d. A great shortage of sheet or window glass is in prospect, as no relief seems probable for a time; a number of cables have been sent to America and Britain with no definite result so far. Business, more particularly the country trade, has gone off quite flat during the past fortnight, and no feasible explanation is forthcoming.

#### SECOND-HAND MINING AND BUILDING MATERIALS.

The country trade for building goods has of late dropped away. Second-hand good deals are from 1s. to 1s. 3d.,

galvanised iron 1s. 3d., flat iron 6s. to 7s. sheet 6 x 3. Business is quieter, chiefly through so much goods being already available and in the prospective. Mining material is really more plentiful than ever and the mines are not buying like they were. There is a hazy idea prevailing that if the poorer mines close down—and it seems within the range of possibility because the Parliament Session is said to be closing within a week and nothing so far has been done—that other stocks may come into an overloaded market. The best outlet for the moment is from the demand from outside sources ranging between the Cape and the Belgian Congo.

#### MOTOR PETROL.

The idea of a scarcity is not altogether far fetched, for although fair quantities of petrol exist in Johannesburg and throughout South Africa generally, yet more economy should be exercised. If the sailing ships come from America with the promised cargoes, then everything will be well, but not otherwise. The big distributors are exercising as much circumspection as possible by not allowing consumers more than their previous average, but they ask that consumers should assist in the economic distribution and so prevent leakages for storage purposes.

#### VARIOUS GLEANINGS.

There is nothing definite, but from semi-official information the railway fares will be raised from 20 to 25 per cent. Hence a return first from Johannesburg to Pretoria will be about 12s. 6d.—instead of 10s. as at present. The Houtpoort Company has come to light again. At its meeting in London it was stated that in the early developments on the

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Nigel reef high values were obtained, but it was the new area of Klippoortje and Tulipvale that they must look to for the future. The company has 2,750 acres in the Sub Nigel district. The two Transvaal factories of glazed drain pipes are doing big business, more particularly with the various coast towns. The increase of cost is explained by the buyers having to pay their own railway carriage, instead of as formerly the manufacturers paid. There are fair quantities of bricks in the market, as the yards are all at work, after the heavy rains. The prices for stock bricks are from 65s. to 70s. All lime has risen from 6d. to 9d. per bag on account of extra cost in production and bags—bags fetching 1s. 1d. each instead of 6d. as in pre-war days.

### REVISED PRICE LIST.

**BUILDING MATERIALS.**—Timber: Deals, Baltic, 9 x 3, 1s. 7½d. to 1s. 8½d.; flooring, 4½ x 1½, and 6 x 1½, 10½d. to 10½d. per square foot; flooring, 4½ x 1½, 10½d.; and 6 x 1½, 10½d.; ceilings, 6 x 1½, 6d. to 6½d. per square foot; pitch pine, 9s. per cubic foot; Oregon, 7s. to 8s. per cubic foot; clear pine, 1s. in x 12 in., 1s. 3d. per foot; lin. x 12in., 1s. 6d.; teak, 19s. to 20s. cubic foot; shelving, 1s. 1d.; jarrah, 12s. 6d. cub. ft.; poplar, lin. x 12in., 1s. 6d.; scantling 7d. to 1s. 8d. ft. beaver boards, 5½d.; galvanised iron, 24-gauge, 6ft. to 10ft., 1s. 10d.; 11ft., 1s. 10½d.; 12ft., 1s. 11d.; 26-gauge, 6ft. to 8ft., 1s. 6d. to 1s. 7d.; 9ft. and 10ft., 1s. 7d.; flat galvanised, 24-gauge and 26-gauge, £5 100lb.; floor brads, 57s. 6d.; ceiling, 47s. 6d.; wire nails, 47s. 6d. to 60s. 100lb.; locks, rim, 68s.; mortise, 70s. per dozen; steel ceilings, 80s. to 85s.; roofing material, 1 ply, 45s.; 2 ply, 52s. 6d.; and 3 ply, 57s. 6d. per roll.

**BRICKS, CEMENT, LIME, ETC.**—Pretoria Portland Cement, 9s. 3d. bag; 8s. 3d. truck loads; lime, white, unslaked, 7s. 6d.; truck loads, 8s. 6d.; slaked, do., 5s. 6d.; blue, 4s. 6d.; plaster lime, 5s. 6d.; bricks, stock, delivered, 65s. to 70s.; wire cuts, 70s. to 80s.; pressed, 70s. to 80s. 1,000; road transport expensive when obtainable; salt glazed, £15 15s., and white bricks, £35 per 1,000; roofing tiles, £17 10s. to £27 10s. per 1,000; glazed tiles, 17s. 6d. to 27s. 6d. per yard; paving cement tiles, 8s. 6d. per yard laid; reinforced concrete columns, 6ft.; plain, 25s.; fluted, 30s.; fireclay bricks, £3 10s. to £10 at kiln, per 1,000; clay chimney pots, 45s. to 70s., according to height, 12in. to 16in. per dozen.

**OILS, PAINTS, LEAD, OXIDE, GLASS.**—Linseed, raw and boiled, 13s. 8d. to 13s. 6d. O.M. gall.; white lead, 1s. 6d. per lb. and 1s. 3d. in big lots; turpentine, 66s. 2½-1½ gallons; 10/- 5½ imp. tins, 72s.; oxide in oil, 60s. per 100 lb.; dry oxide, 13s. 6d. to 16s.; linseed oil putty, 9d. per lb.; paints in tins, 1s. 6d. lb.; British plateglass, 1in., 6s. 6d.; do.; mirror, 7s. 9d.; window, 16 oz., 1s. to 1s. 6d. per foot; and fancy glass, 2s. per foot.

**GREASE.**—Imported, A.F. axle, £35½ local, £27 to £27½ per ton; tallow (local), 8d. per lb.; White Rose paraffin, 19s. 4d. 2/4

Laurel paraffin, 19s. 1d.; petrol, 35s. 6d. to 38s. 6d. 2/4 I.M.P.; motor oil, 7s. to 7s. 6d. per gallon; engine lubricating oils, 35s. to 45s. per case; cylinder, 35s. to 45s.

**CHEMICALS.**—Mercury, £40 75lb.; bichromate potash, 5s. 6d. lb.; chloride, 4s. 6d. lb.; permanganate, 11s. 6d. to 13s. lb.; alum, 6d. lb.; carbolic acid, 7s. 6d. lb.; borax, 11s. 100lb.; cyanide sodium, 2s. 3d. to 2s. 6d. per lb.; hypo, 9d. lb.; nitrate lead, local, 50s. 100lb.; litharge (assay), 70s. to 72s. 6d. (commercial), 58s. 100 lbs.; zinc sheets and blocks, 1s. 9d. lb.; locally-smelted zinc, 6d. lb.; plumbago crucibles, 5d. per number; carbide, 108s. to 112s. 100lb.

**ELECTRICAL GOODS.**—Lamps, high voltage, British, Holland and American, 30s. to 36s. wholesale, and 48s. to 54s. doz. retail; carbon lamps, 18s. dozen; pure rubber flex, 6d. to 8d. yd.; 3/20 coils wire, 50s. to 60s.; ditto, 3/22, 35s.; 7/22, 60s.; 7/20, 105s.; 7/18, 135s.; tubing, 27s. 6d. to 30s. per 100 ft.; keyholders, 4s. 6d. to 5s. 6d. each; round blocks, 3½in., 5s. 6d. to 6s. dozen; lamp holder cord grips, 15s. to 15s. 6d. per dozen; switches, 5 amp., 36s. to 42s. per dozen; British glass shades, 30s. to 40s. dozen; porcelain shackles, 15s. to 18s. dozen; do., bobbins, 25s. to 30s. per 100; cleats, 22s. per 100; P.O. insulators, 18s. dozen.

**IRON.**—Imported, 4in. and 5in. round, 9d. to 10d. lb.; 3in. round and square 70s. to 75s. 100lb.; 5in., 68s.; 5½in. round, 50s. to 55s. 100lb.; 1in.

up, round, 36s. to 40s. 100lb.; square iron, 36s. and up, 100lb.; flat iron, small shoeing sizes, 55s. to 70s.; flat, average width and thickness, 36s. to 50s.; round iron, local, 5in. upwards, 33s. 6d. per 100lb.; square iron, local, 5in. upwards, 33s. 6d. per 100lb.; flat iron, average width and thickness, 33s. 6d.; mild steel bar, 6d. to 9d. per lb.; drill, 10d. to 1s. per lb.; steel plates, 70s. to 80s.; many sizes unsatisfiable; hexagon and cuphead bolts, 4in. diameter, 2s. per lb.; 5½in. diameter, 1s. 9d. per lb.; 5in. diameter up to 3in. long, 1s. 9d. lb.; 5in. dia., 1s. 6d.; 3½in. and up long 1s. 6d. lb.; 5in. dia. up to 2½in. long, 77s. 6d. 100lb.; 5in. dia. and 2½in. up long, 75s. per 100lb.; 5in. diameter up to 2½in. long, 85s. per 100lb.; 5in. dia. 2½in. and up long, 60s. per 100lb.; 5in. diameter, 2½in. and up long, 55s. 100lb.; 5in. and 1in. diameter, same price as 5in. diameter; nuts, 5in., 1s. 3d. per lb.; 4in., 85s.; 5in. to 1½in., 75s.; 1½in. and 1¼in., 85s.; 1½in. to 1¾in., 87s. 6d.; 2in. up, 92s. 6d.; washers, all 45s.; rivets, 3½in., 1s. 6d. lb.; 5in., 5½in., 1s. 6d. lb.; 7½in., 1in., 1s. 3d. lb.; 5in., 75s.; 5in., 65s.; 5in. up, 60s. 100lb.; shoes and dies, 32s. 6d. to 35s. 100lb.; rails, £25 per ton; picks, 4lb. 40s. per doz.; shovels, 65s. to 70s. per doz.; drill hammers, 5d. to 6d. per lb.; hammer handles (best American), 14in., 4s. 6d.; 24in., 10s.; 30in., 14s.; 36in., 16s. 6d. per dozen; metal, anti-friction knoxite, 11d. to 4s. and special prices per lb.

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## Engineering Notes and News.

### S.A. INSTITUTE OF ELECTRICAL ENGINEERS: PRESIDENT'S ADDRESS.\*—VI.

THE long distances in South Africa do not lend themselves to any great national schemes of power supply and distribution similar to that outlined in the "all electric scheme" of Great Britain, and the majority of schemes of electric power generation on a large scale will be confined to the areas of the Transvaal and Natal coalfields. The consolidated area of the Witwatersrand goldfields, along a line of between 30 and 40 miles, provided ideal conditions for a large power company such as the Victoria Falls and Transvaal Power Co., the inauguration of which occurred at a time when efficient power generation was in its early stages. It has been a huge success and has been responsible for curtailing expenditure on power plant on individual mines, thus leaving more capital available to be spent on metallurgical plant and recovery processes. The realisation of success in this large power undertaking constitutes progress and high engineering attainment on the part of Mr. Bernard Price and all those concerned. The South African Institute of Electrical Engineers has reaped a rich harvest in the numerous papers which have been read concerning the difficult problems connected with large power production and its distribution on a big scale. The application of electricity for winders working at great depths may also be said to have received more attention on the Witwatersrand than elsewhere, and according to the Government Mining Engineer's Report, 1916, there are 28 Ward-Leonard hoists and 107 three-phase hoists of a total horse-power of over 90,000. The managers of all electric supply undertakings throughout the country must be ready at all times to point out the opportunities of selling electric power at times of low peak load at exceptionally low rates. It cannot be expected that any supply company can make special rates for any particular industry (outside the question of load factor and diversity factor), but it is perfectly legitimate business to offer very low rates during prolonged periods of low loads. If this be done many of the metallurgical processes can be profitably done electrically if arrangements are made for taking a minimum amount of power at times of peak load sufficient to keep refractory portions of furnaces, etc., from injury. Owing to the long distances already referred to in connection with South Africa, it must be borne in mind that industrial progress will largely depend upon the efficiency and proper choice of small power plants, and too much attention cannot be given to this important aspect. A great deal will depend upon the efforts of agents for small gas, oil, and steam plants to show their value in the smaller industrial undertakings. The importance of this subject is realised by the Council of this Institute, and a paper is to be read at the next meeting upon small generating plants and their applications to agricultural and industrial activity. The question of liquid fuel is one of importance in South Africa, and the uses of oils such as fish oil, palm and nut oils, benzol and industrial alcohol are worthy of the closest investigation. Too much attention cannot be paid in the case of alcohol, as this is undoubtedly

one of the great possibilities of the country owing to the fact that sugar and maize are among the chief products, and it is said that there are about 40,000 tons per annum of molasses as a by-product from the sugar industry, which would produce more than 3,000,000 gallons of industrial alcohol each year if properly treated. It is gratifying to know that a factory for the production of motor spirit has been erected at Merebank, the full capacity of which is about 3,000 gallons per day (*Journal of Industries*, Sept., 1917). Denaturing difficulties have been overcome, and excise duties have now been removed in accordance with Act No. 36, 1917. The results of very careful tests, carried out by Professor Orr and Mr. J. A. Vaughan, the Chief Inspector of Machinery, an account of which is given in the *Journal of the S.A.A.A. Science*, July, 1916, go to show that from the engineering point of view there are no difficulties in the use of denatured alcohol on ordinary motor cars as regards deposit on cylinders, smoke or disagreeable odours in the exhaust or of corrosion; it is only a matter of the cost of producing industrial alcohol compared with the price of petrol. Owing to the enormously increasing petrol demand all over the world for mechanical propulsion of every conceivable kind, and the certainty of the future of aviation as an ordinary commercial business in times of peace, industrial alcohol must necessarily be utilised to a

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greater extent in the future than in the past, and the engineering sub-committee of the Scientific and Technical Committee should adopt an early policy of determining what modifications of design are required in connection with ordinary petrol vehicles to obtain the higher compressive pressures necessary for the most efficient use of denatured alcohol, and the best arrangement to adopt for its greater use in this country. The great problems of transport which form the backbone of the industrial development of every country continue to receive the attention of engineers, more particularly in connection with railways. Increased steam pressures and high superheating in connection with locomotive boilers of the pipe generator type are being responsible for great economies in steam locomotive practice, and locomotive boilers designed for the use of pulverised coal have already been brought to the practical stage and are used by several of the American companies, such as the New York Central and the Delaware and Hudson Companies, and great savings are being effected by the use of low grade coals and the realisation of greater thermal efficiency as well as reducing the time required to raise steam. The stand-by losses which form such a large proportion of the total coal consumption are also being considerably diminished. The highly efficient Boncourt boiler in which the system of surface combustion is applied, has also been introduced for locomotive practice in connection with oil fuel, and there may be great possibilities of the use of a boiler of this description if it can be adopted for use with pulverised coal. The intrusion of the electric locomotive, more especially for main line traffic, has spurred the steam locomotive engineer to greater efforts in efficiency. It is gratifying to know that the electrification of the South African Railways is being given serious consideration by the Union Railway Administration, and the country has every confidence that Sir William Hoy and his advisers will avail themselves of any advantagea to be derived from railway electrification, and as electrical engineers, we await the report of Messrs. Merz & McLellan, hoping to find that substantial advantages will be derived. In this connection

I refer with pleasure to the paper recently read on this subject by one of our Past Presidents, Mr. J. W. Kirkland, in which he showed that the engineering aspect of the electrification of railways for main line traffic was established beyond all doubt, this fact being so well illustrated by the excellent description and working of the Chicago, Milwaukee and St. Paul Railway. Mr. Kirkland's paper was a record of the latest electrical engineering development on railways, and it must have proved both a powerful incentive and inducement to apply these methods to the South African Railways. Mr. Kirkland has expressed the opinion that the greatest possibilities for the electrification of the South African Railways lie on the mountainous portion of the Durban line between Ladysmith and the coast, a distance of about 125 miles. If the water power scheme on the Crocodile River between Nelspruit and Kaapmuiden and the coal districts of Middelburg is developed in connection with future electro-chemical industries, the power available at these points on the Delagoa Bay line offers a most alluring prospect in connection with the electrification of that portion of the railways. The problems of transport and light railways to feed the main railway lines have already received a full measure of attention by an enlightened Railway Administration, as will be seen by a series of articles by Mr. F. Dutton, A.M.I.Mech.E. in the *South African Railways and Harbours Magazine* during the last four months, in which Mr. Dutton's ingenious arrangement of utilising an ordinary road vehicle for propelling trucks on a light railway is fully described. A light railway, however, limits the use to rail transport, but is of very special utility where good roads are impossible owing to the presence of sand, marsh or bog, in which case it will most probably be found better to instal a complete and self-contained tractor running on the rails. Speaking generally, however, until an extension of the railways is justified, the making of good roads to and from railways is the greatest essential as it enables all kinds of traffic to be utilised.

(To be continued.)



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## The Week's Meetings.

### ROBINSON DEEP, LTD.

The ordinary general meeting of shareholders of the Robinson Deep G.M. Co. was held at noon on the 26th inst. in the board room, Consolidated Goldfields Building. Mr. D. Christopherson presided, and there were also present Messrs. D. W. Rossiter, H. C. Boyd, W. S. Smits, A. Sprinz, J. E. Kent, M. Honnet, R. O. Stone, F. Raleigh, A. E. C. Hocking, and A. S. Thompson, secretary, representing 841,300 shares out of an issue of 1,181,807.

The Chairman said: The report and accounts for the 12 months ended 31st December, 1917, are now before you, and I presume that as usual we may take them as read. Taking the income and expenditure account first, it will be seen that during the year under review the gross total profit was £144,522, from which, however, had to be deducted £34,866 for various items, namely: Assessments in respect of the Miners' Phtisis Compensation Fund, income tax, etc., etc. (consequently the amount carried to the appropriation account was £109,656). There was a balance to credit of this account at 31st December, 1916, of £7,019, while a sum of £55,424 (being a refund in respect of amounts previously appropriated for capital expenditure, as shown in the balance sheet to 31st December, 1916) has been written back. The total on the credit side of the appropriation account was therefore £172,100. Out of this the No. 3 dividend of 4s. per share on the "A" shares, amounting to £100,000, was provided, and paid on 30th August last; and there was also the usual annual provision of £1,000 for the redemption of "A" shares, £71,100 being carried to the balance sheet.

### The Balance Sheet.

Turning now to the balance sheet. On the credit side property and equipment stands at £1,893,249 or £28,219 less than at the end of the previous year, this decrease being consequent as to £27,675 upon the writing off, as per contra, in respect of the reduction due to payment of the No. 3 dividend after allowing for the revision of the capitalised present value of the preferential dividends still to be declared on the "A" shares. Expenditure on equipment of property (including the "Chris" shaft) is £265,331 as compared with £94,835 previously, or an increase of £170,546. A detailed analysis of this capital expenditure being embodied in the report. Investments are £4,524 as compared with £15,075, the decrease being due very largely to the fact that during the year we took advantage, in order to strengthen our cash position, of disposing of our shareholding in Breyten Collieries, Ltd. Gold in transit and cash at bankers (excluding £22,259 for unclaimed dividends, per contra), payments in advance and sundry debtors total £103,827. There are no other items on the right side which call for comment. Taking now the left side of the balance sheet. The Robinson Deep Gold Mining Company's purchase account is reduced from £1,254,072 to £1,226,397, namely, a difference of £27,675, of which I have already made mention. At the annual meeting last year I explained that this account represents the capitalised present value of the company's liability to the "A" shareholders in respect of the cumulative preferential dividends still to

be declared, and will decrease each year as the dividends on the "A" shares are paid out. I need not, therefore, go into this subject again today. The reduction of this item would, of course, have been greater had it not been for the fact, much to our regret, that the declaration of the preferential dividend of £100,000 in respect of the latter half of last year had to be postponed, but this is a matter to which I will again refer.

"Loans with interest accrued," viz., £213,593, is in respect of £210,000, which we have borrowed from the joint guarantors (Consolidated Gold Fields of South Africa, Ltd., and the Central Mining and Investment Corporation, Ltd.) under the agreement in connection with the "Chris" shaft expenditure—a matter which I will also deal with later on. The liability to the Union Government for bewaarplaatsen annuity stands at £86,994, having been reduced from £115,992 by the usual annual instalment of £28,998. The remaining items on the debit side require no special explanation.

### Mining Results.

As regards the declared results of the mining operations during the past year, 561,400 tons were crushed, from which a revenue of 27s. 6d. per ton was derived; working costs (excluding expenditure on renewals and replacements of plant, etc.) were 21s. 11.21d., so that the working profit was only 5s. 7.085d. per ton. Compared with the previous year, there was a decrease of 70,800 tons milled; revenue was less by £s. 9.706d. per ton; while working costs were higher by 2s. 3.239d. per ton, thus the total working profit decreased by, £148,718. The factors causing the serious drop in the total profits are dealt with in the reports of the consulting engineer and manager. Shareholders have been kept informed from time to time of the position, by means of the quarterly reports and by official notices in the Press, and can therefore easily appreciate that the mine has been operated during the past year under exceptionally adverse circumstances.

I would, however, like here to emphasise some of the difficulties under which work has been carried on. Shortage of native labour has been acutely felt all along, the average number employed being a decrease of 540 natives, or 1,263 less than the complement allotted this mine. As your manager has pointed out in his report, this shortage of native labour has been of double weight, since with available hoisting facilities ore has had to be transported from great distances, owing to the loss of No. 2 vertical shaft, which shaft, as I mentioned at the last annual meeting, it was found necessary to abandon entirely, owing to increasing pressure of rock, necessitating making arrangements for the whole of the transfer of men, materials and ore to be undertaken through the eastern vertical No. 1 shaft.

These difficulties were emphasised owing to the exhaustion of the majority of working faces in proximity to that shaft, making it necessary to obtain practically all the ore hoisted from faces more remote, namely, in the far western portion of the developed deep level areas which were rendered accessible by making use of No. 2 incline shaft from the 25th level downwards. The loss of time in transferring men, materials and ore over such long distances between the ver-

tical shaft in use and those working faces, added materially to the working costs, the increase being reflected not merely in high tramming cost but in the cost of almost every mining operation. As a result of the present high working costs, several stopea have temporarily fallen under the pay limit, so that work in them has had to be suspended and consequently the sources of ore supply have become even more limited.

We have to face the fact that this position must continue until ore can be delivered to the mill through the "Chris" shaft, which, however, is being sunk as rapidly as possible on the newly-acquired Booyens ground. Every effort is being made with the object of having the new shaft available to some extent for hoisting of rock by July or August next.

### Water Troubles.

Then we have also experienced considerable disabilities owing to an increase in the amount of water entering the mine workings and the difficulty of adequately handling it. We had some trouble in this connection towards the end of the rainy season at the commencement of the second quarter last year, but the difficulties towards the end of the year, as a result of the excessive rainfall, were considerably increased. The underground pumping plant became overloaded, and not only was development retarded, but the already overloaded winding plant at No. 1 shaft had to be used for bailing. Since the end of the year these difficulties increased owing to the phenomenal rains, more particularly in February last, and as was the case with many other companies, the mine was severely handicapped—indeed, at times the position became very acute and occasioned much anxiety. I am happy, however, to be able to state that with the loyal co-operation of all concerned, the management succeeded in coping with these water difficulties, and arrangements have since been made whereby it is hoped that for the future the amount of water entering the mine workings will be considerably curtailed.

You will notice from the reports before you that during the year under review your manager, Mr. J. J. Wessels, has successfully conducted experiments in the direction of the mechanical replacement of hand-drilling natives by the jack-hammer—a small drilling machine. Mr. Wessels, in common with other managers, has been experimenting for years in the hope of evolving a suitable and satisfactory small drilling machine, and you will, I feel sure, be glad to know and to join with me in congratulating him and others that their persistent efforts have been attended with excellent results, and that there is every reason to believe that a successful adaptation of the jack-hammer machine to stoping has been found. The use of the machine in question is being largely extended by Mr. Wessels for stoping work on this property, and had it not been for this the shortage of labour would have been felt more seriously.

As regards development work during the past year, 10,869 feet have been accomplished as against 9,849 feet in the previous year; but owing to the adverse circumstances referred to the footage accomplished was not as great as was hoped for. Most of the de-

velopment work was done in the Booyseens estate ground, where you will be glad to know that the grade of ore exposed is above the average of the present reserve, and indicates some improvement for the current year. Your consulting engineer estimates the ore reserve at 1,725,000 tons of an average assay value of 6.43 dwts. per mine ton. This is a decrease of only 89,000 tons as compared with a year ago, whereas the assay value is .27 dwts. per ton higher. In addition there is partially developed ore estimated at 131,000 mine tons, to which has been assigned a value, from existing information, of 6.52 dwts. per ton. The decrease of 136,000 tons in the tonnage of fully and partially developed ore is comparatively small, especially when it is known that there has been excluded 175,000 tons of low-grade ore which cannot be worked at a profit under existing conditions. In the recently acquired Booyseens ground the development main straight haulages on the Main Reef leader are being, and will continue to be, driven under the reef as a safety measure on account of increased earth pressure and to facilitate underground transport of ore. Consequently a greater proportion of the drive footage will be off reef; thus the footage sampled will not truly indicate the ore rendered accessible. The rate of development should be increased as new points of attack become available on each of the four levels to be advanced off the "Chris" shaft.

### The "Chris" Shaft.

As to the "Chris" shaft, this was sunk a further 1,986 feet to a total depth of 3,417 feet at 31st December, 1917, the average rate of sinking being 165.5 feet per month, or 180.5 feet per month if you exclude the stoppages due to changing over on to the permanent hoisting plant, and others brought about by difficulties encountered in the shaft—a very satisfactory record. Since the end of the year this shaft has been sunk to a total depth of 3,860 feet. It has been connected up with the 3,500 foot level and it is anticipated that arrangements will be completed to hoist ore from that level towards the end of July, while the whole lay-out, including ore bins, should be completed by the end of the year. You will notice that your consulting engineer states timbering has been done rapidly and carefully, and that your consulting mechanical engineer, Mr. A. C. Holtby (to whom I wish to accord our high appreciation for the good work accomplished) has overcome many difficulties in adapting material for the surface construction work.

The expenditure in connection with the "Chris" shaft schemes up to 31st December last was £260,600, and it is estimated that a further £101,000 will be required during the current year. As has previously been mentioned, we have already drawn upon the Guarantors of the Joint Loan of £300,000 to the extent of £210,000, and within the next few months the whole of the remaining balance of £90,000 of that loan will be taken up. It is obvious, therefore, that current profits will have to provide the necessary funds to complete the "Chris" shaft scheme.

### Reduced Profit.

As has already been pointed out to shareholders owing to the continued shortage of native labour, difficulties due to closing down the No. 2 vertical shaft and other disabilities, the profit for the last half of the year

under review was considerably reduced, and in order to ensure funds being available to complete the programme in connection with the "Chris" shaft, the directors decided to postpone for the time being the declaration of the dividend of 4s. per share on the "A" shares due for the six months ended 31st December, 1917. We hope to be able to declare in June a dividend of 2s. per share on the "A" shares payable in July or August, but this, of course, is dependent on the profits made during the immediate future. If we are able to do so, we shall then be behind to the extent of £150,000 in respect of the cumulative preferential dividends on the "A" shares, but as soon as the new shaft is in commission a very material improvement in our working profit should be made, always provided, of course, that no unforeseen serious difficulties arise and that native labour is available.

There is a matter I would refer to. It will be seen from the report that since the close of the financial year an agreement has been concluded with the Turffontein Estate, Ltd., whereby the properties and assets of that concern (with certain minor exceptions) were acquired as at 1st January, 1918, in exchange for 100,000 Robinson Deep, Ltd., "B" shares fully paid. Under the agreement your company accepts such title as the Turffontein Estate, Ltd., had to the properties and assets acquired, and it is also entitled to all the benefits and privileges to which the Turffontein Estate, Ltd., was entitled in connection therewith, and shall fulfil all the liabilities and obligations of the Turffontein Estate, Ltd., in respect thereto. Arrangements for transferring the properties and assets in question (which is, however, en-

tailing a considerable amount of work) are now in course of completion. Particulars of the assets, etc., acquired will, of course, appear in the next balance sheet. In the meantime I give the following brief details of the deal, but I would add that a copy of the agreement entered into with the Turffontein Estate, Ltd., is here available for the inspection of any shareholder who wishes to peruse it:

1. Certain mynpacht and claims on the farm Turffontein No. 19, equal to 165.526 claims in all.

2. Freehold rights on same farm, equal to 1,048 morgen 503.107 square rods.

3. Freehold rights on Farm No. 21, 4. Township titles of Turffontein, West Turffontein, Forest Hill, and Oakdene.

5. Deeds of leases of many areas and various agreements.

The mynpacht brief in regard to the above mynpacht area has been granted by the Government to the Turffontein Estate, Ltd., and will in due course be transferred to your company. The farm Turffontein No. 19 was proclaimed by the Government as a public digging on 25th March, 1918.

The above deal is very advantageous to your company and will considerably increase its life as a gold mining proposition, whilst the freehold rights are of considerable value.

### Company's Prospects.

I venture to say as regards the future, that when we have tided over the present difficulties due to war conditions, there is good reason to think that the new life which the company received on acquiring the Booyseens Estate ground will prove to be of considerable value. The values that are

being opened up on Booyseens ground are better than we hoped for, whilst, as soon as the new shaft can be brought into operation, working costs should be favourably affected, and not only that, but the shaft will generally improve conditions underground. Therefore, as I say, after we have weathered the present storm, the future of the mine promises to be successful.

During the past year a further 40 of our mining employees have gone on active service, making a total of 190 in all, the number actually on active service at the end of the financial year being 80. Unfortunately there have been many casualties during the past year among our men (viz., two killed and 12 wounded), the names of whom are given in the manager's report. I have already conveyed to the relatives of these men our deepest sympathies, and I am sure you will desire to join me therein and in wishing the wounded men a speedy recovery.

Since the date of our last annual meeting Mr. C. D. Leslie was appointed consulting engineer and Mr. O. P. Powell superintending engineer.

In conclusion I would like to record our great appreciation to the engineering staff, to our manager, Mr. J. J. Wessels, and all those under him. The staff—both on the surface and underground—has been greatly reduced owing to so many of the men being away on active service, and our thoughts are ever with these men, especially during the present tremendous struggle on the Western Front in Europe. Nothing but recognition by those still remaining of the necessity of keeping the gold mines going, the importance of which is only second to munition work, has enabled the working of the mine to continue. From choice they would, in common with others remaining here to carry on, greatly prefer to be with their friends right at the front, sharing the dangers and hardships at this critical juncture of the war. They are making a big sacrifice in doing what they are doing from a sense of duty. I now beg to move the adoption of the report and accounts for the year ended the 31st December, 1917.

Mr. A. Sprinz seconded the motion and the report and accounts were unanimously adopted.

The directors remain in office until the first ordinary meeting in 1920, after which retirement is provided for in rotation.

Messrs. Douglas, Low and Co., and Messrs. F. W. Diamond and English were re-appointed auditors.

### SIMMER DEEP.

#### ANNUAL MEETING.

The eleventh ordinary general meeting of shareholders in the above company was held in the board-room, Consolidated Gold Fields Buildings, on March 26. There were present Messrs. D. Christopherson (chairman), D. W. Rosister, W. S. Smits, J. E. Kent, E. Renaud, R. O. Stone, J. Jourdan, A. E. C. Hocking, and A. S. Thompson (secretary). There were represented personally and by proxy, 329,674 shares out of an issued capital of 1,650,000.

The chairman said—Taking the income and expenditure account, it will be seen that working profit for the year was £23,495, added to which was sundry revenue of £9,965, making a total of £33,460. Interest and expenses in connection with debentures was £40,814, while special expenditure due to war, miners' phthisis payments and other items absorbed a further £11,329, or a total of £61,943, so that

the net result was a loss of £13,483, to which I will refer again later on. From the credit side of the balance sheet you will see that property account is £630,430, or £24,000 less than at the end of the previous year, that being the consideration for the right granted to the Simmer and Jack Proprietary Mines, Ltd., to mine approximately 40 of your claims. Sundry debtors, £58,161, is an increase of £45,074, which increase is more than accounted for by the liability of £49,600, then due by the Simmer and Jack in respect of the 40 claims. Investments stand at £2,952 as against £6,511, a decrease of £3,559, which is mostly due to our having disposed of our holding of 3,636 shares in the Breyten Collieries, Ltd. Development, it will be noticed, stands at £447,080, or £12,796 less. This arises owing to the fact that development reserve, which appeared in the previous year's balance sheet, has been credited to that account, and therefore disappears from the balance sheet. No other items on that side call for attention. Turning to the other side, the first debentures at the end of the financial year stood at £489,400 and the second debentures at £212,500, a reduction of £16,900 and £12,500 respectively as compared with the previous year. As explained in the directors' report, the purchases on the open market resulted in a total saving to the company of £10,315. There is nothing else, I think, in the balance sheet that calls for special notice. Since the close of the financial year due provision was made for meeting interest (and other charges) which fell due at the beginning of this month on our respective debenture bonds, while the eighth annual drawings of £12,500 second debentures which were also due for redemption at the same time were likewise duly provided for.

The tonnage crushed during the year was 621,800 tons, or a decrease of 140,900 tons as compared with the previous year. The grade of ore milled showed an improvement, viz., 18s. 10.557d., or an increase of 11.930d.; working costs were higher, however, by Is. 6.699d. per ton. The development footage accomplished was 9,527 feet as against 7,245 feet in the previous year or an increase of 2,282 feet. In common with other mines, your company suffered many disabilities during the year under review, hence the reduced profit. The decrease in crushing of 140,900 tons was attributable to the serious average decline of over 800 natives, the number employed being about 74 per cent. of its complement as compared with 88 per cent. for the previous year. Had it not been for this shortage in the native labour supply the profit would have been more than maintained at the level of 1916 even in spite of the heavier cost due to war conditions.

#### Simmer and Jack Deal.

Shareholders were circularised in January, 1917, with full details regarding the agreement made with the Simmer and Jack Proprietary Mines, Ltd., whereby your company sold the right to mine an area equivalent to approximately 40 claims situated on the north-western boundary of your property, the consideration therefor being £124,000 of which £62,000 was paid on the signing of the agreement, the balance being payable in five equal annual instalments of £12,500 with interest at the rate of 5 per cent. per annum, the Simmer and Jack Company having the right, however, to pay off the balance or any portion thereof before the expiration of five years from the date of the agreement. The first instalment of £12,500 was duly paid in December last,

and since then we have also received a further £20,000 in this connection. The arrangement for granting the right to mine was considered an eminently satisfactory one for both companies, while the payments so far made by the Simmer and Jack had materially assisted your company in its finances. For the time being, therefore, we have been enabled to meet our debenture liabilities, but owing to the continuation of the disabilities already mentioned it will require all the energies of our engineers and manager to surmount the difficulties we are faced with, but of this I will say more. Excluding the 40 odd claims leased to the Simmer and Jack Proprietary Mines, the ore reserve at 31st December last was estimated at 1,097,000 tons of fully developed ore of an average mine value of 4.83 dwts., and 146,000 tons of partially developed ore of an indicated mine value of 4.59 dwts. being a decrease of 149,000 tons in the fully developed reserve and an improvement of .27 dwt. in value. There are excluded from this estimate some 91,000 tons of low grade ore, which owing to increased working costs due to the war are under the payable limit. Mr. Leslie, the consulting engineer of the company, points out that the sampling of a continuous length of 1,400 feet of driving on the Main Reef on the 22nd level between the Milner and Clement shafts, most of which was done during the past year, showed a reef channel of 57 inches averaging 6.2 dwts. per mine ton, while three winzes in this section from that level showed the same width of reef channel assaying 6.3 dwts. per mine ton for a distance of 500 feet. In addition to this we have the fact that the Jupiter Mine, our immediate neighbour on the west, is opening up good values on its deeper levels approaching the boundary of the Simmer Deep. All this is an encouraging indication that, after many lean years of great difficulties, we are entering a zone of higher grade than has been the case for years past, indeed some improvement in the average grade of ore milled is to be expected in the near future.

#### Improvements In Winding.

Improvements in winding arrangements are being made at the Milner and Clement Shafts and operations will be considerably helped when these installations are completed. The new winder at the Milner Shaft is already in satisfactory commission. As can be readily appreciated these improved winding arrangements will be of considerable advantage in dealing with the ore available in the lower levels of the Clement Shaft, which are opening out so favourably. The abnormal amount of water we have had, and still have, to deal with underground, due to the recent excessive rains, has retarded the opening up of the lower levels of the Milner Shaft. Our pumping and baling costs for 1916 were 4.809d. per ton milled, for 1917 5.728d., while for the past three months they have averaged 8.553d. per ton milled. This gives you some idea of the water troubles we have had to cope with.

There were encouraging indications that after many lean years of great difficulties the company was entering a zone of higher grade than had been the case for years past; indeed, some improvement in the average grade of ore milled was to be expected in the near future. The mining operations of the company since the beginning of this year has been very seriously interfered with owing to shortage of labour, high costs from the increasing war burdens and the season's abnormally heavy rains. The average tonnage crushed had been at the rate of only 41,600 tons per month, as against 51,800 tons per month in 1916. Given an adequate supply of native labour, more especially in view of the improving grade, there was every reason to think the company could more than pay its way, especially when normal conditions were to

some extent again realised; but the effects of war conditions coupled with other adverse factors were felt very severely by low grade concerns such as the Simmer Deep, and, as evidence of this, the following figures were given by the chairman, as showing the additional costs due to war which were included in working expenses during the past year:

Stores (taking the difference between the costs charged out to working expenses during November, 1917, and what would require to have been paid had the November, 1914, prices obtained) .. .. .. .. ..	£45,433
Gold insurance, freight and realisation .. .. .. .. ..	3,512
War bonuses .. .. .. .. ..	5,848
Allowances to men on active service and their dependents .. .. .. .. ..	5,274

Total .. .. .. .. .. £60,065

The above figures were the actual additional cash costs, but owing to so many of the most highly skilled men being away on active service, the general efficiency in the work of the mine had been much impaired and profits had suffered accordingly.

#### Parliamentary Inquiry.

And here (continued the Chairman) I would like briefly to refer to the report recently published of the Select Committee, which has been sitting during this Parliamentary Session to inquire into the position of these low grade mines. Mr. Wallers, as President of the Chamber of Mines, Mr. Leslie, Mr. J. J. Wessels and myself, went down to Capetown in order to place before that Committee what it meant to the country and to this community, especially if a number of low grade mines close down, and at the same time to warn the Government that the danger was very present. Mr. Wallers, as representing the Chamber (except the Consolidated Gold Fields Group), suggested means as to how this danger might be minimised, namely, by the Government selecting for closing down, say, six mines which could be reopened again when conditions were more normal, and the Government contributing to the cost of maintaining those mines when closed down in such condition as to enable them to reopen at minimum cost; whilst Mr. Leslie and myself suggested that Parliament might vote a certain sum of money to be used at their discretion to assist low grade mines to continue working during the next 12 months. As you can obtain copies of the report of this Select Committee, which gives all the evidence very fully, I need not dwell further as to the details of that evidence.

The Select Committee in their report practically say the position can best be met by closing down certain low grade mines, which can be reopened, and at the same time the Imperial Government, who require the gold, should by means of reducing the insurance rate on gold contribute at the rate of £140,000 per annum towards the cost of maintaining those mines whilst closed. They also recommend that steps should be taken to control

- (a) the amount of development work that may be carried on by each mine;
- (b) the allocation of stores, and especially explosives;
- (c) the allocation of the available native labour force.

This control to be exercised if possible by the voluntary action of the mining companies through the Chamber of Mines, but the committee does not say the object of this control. If it is meant that certain low-grade mines, outside of those which may be closed down under the proposal mentioned above, should have, in case of necessity, a preference in regard to the distribution of native labour and stores, more especially as against extension of milling operations on the Far

East Rand, it would mean considerable assistance in preventing further low-grade mines closing down, but this is not said, and this intention is not read into the report by most people. If the Simmer Deep was given a preference as regards the allocation of native labour and a pro rata preference as regards the allocation of stores such as to maintain, say, 85 per cent. of its allotted complement, I have no doubt the mine could tide over its present difficulties; but there are other low-grade mines in the same position who might ask for the same amount of preference and it then becomes a question as to how far this preference can be given without hurting Imperial interests and those of the Government of the Union of South Africa.

### Suggested Arbitration.

The Empire requires the gold, the Union Government not only requires the large revenue that is received through various sources from the working of these low-grade mines, but is also highly interested in avoiding serious difficulties which will arise after the war, owing to unemployment, if many of these mines close down. In view of this, and the conflicting interests as between shareholders of the high-grade and low-grade mines, making a unanimous agreement of those representing these mines extremely difficult, then I maintain that the Government should come to a definite decision as to whether or no some preference should be given to mines which continue to work but are in danger of closing down. In that case the Chamber of Mines might be asked to come to an agreement as to this, as far as possible, and if the Government would allow Mr. Kotze, the present Government Mining Engineer, to arbitrate where there may be a difference or opinion I am sure the boards of directors and shareholders of the various mining companies would accept his decision as final. The Select Committee clearly realise the danger of the sudden closing down of a number of these mines leading to dislocation of the business of the country and, as they say, "possibly" to unemployment and distress. The word "possibly" could well have been left out, as, if a large number of these mines close down, many will be reopened and unemployment and distress after the war is a certainty.

At the 31st of December last 57 of our employees were on active service. I regret to say that since our last annual meeting the following casualties have been reported:

Killed.—C. H. Grey, J. Lister, C. Y. Bruce, C. F. Hamilton Cox—previously wounded (Joint Reduction Plant).

Wounded.—W. B. Calliers—wounded as per last report, since wounded again, T. W. B. Brigden, G. Morrison—twice wounded, J. J. Trapp, R. H. McMullen, G. C. Mills, and C. Paul, H. S. Thompson, H. F. Donkin, M. F. Balfe, R. C. Gauld and O. M. Bergh (Joint Reduction Plant)—wounded as per last report, since wounded again.

I am sure you will all join me in an expression of our deepest sympathy with the relatives of all these men, and to the wounded men themselves, who I trust will speedily recover. To those of our employees still serving on the Western front in Europe, we earnestly trust they will come safely through this tremendous struggle now in progress in which we know several are gallantly participating.

Since the date of our last annual meeting Mr. C. D. Leslie has been appointed consulting engineer, and Mr. O. P. Powell, superintending engineer. To these gentlemen, and also to the manager and his staff we desire to record our appreciation of their good work during the past year, which has been a difficult one, carrying many anxieties and again imposing a severe strain on all the responsible officials. I now beg formally to

move the adoption of the report and accounts before you.

The motion was seconded and carried unanimously.

Messrs. Hely Hutchinson and W. S. Smits were re-elected and the auditors, Messrs. Douglas Low and Co. and Chas. Stuart were reappointed.

### SOUTHERN VAN RYN.

An extraordinary general meeting of shareholders of the Southern Van Ryn Reef Gold Mining Company was held last week in the board-room, Exploration Buildings, to consider the ratification of an agreement with the Consolidated Gold Fields of South Africa, whereby the company increases its nominal capital from time to time by an amount not exceeding £200,000 by the creation of 200,000 shares of nominal value of £1 each, such shares to be offered to the Consolidated Gold Fields upon the terms and conditions contained in the agreement.

Mr. W. E. Bleloch presided at yesterday's meeting, when the ratification of the agreement was unanimously agreed to and the necessary resolutions were passed. He reviewed the history of the company and spoke of the financial difficulties they had always encountered, due to the lack of adequate support in South Africa and the oppression of the Gold Law. Out of a sum of £40,000 something like £14,000 had gone in taxation to maintain the title to their property. Throughout their three years' history they had had a constant struggle, but their faith was now to meet with its reward. He explained the conditions under which the Consolidated Gold Fields acquired their interest in the company.

Mr. William Anstey thought the arrangement was of mutual benefit to the shareholders of the company and to the Consolidated Gold Fields.

The Chairman spoke gratefully of the self-sacrificing spirit of directors who had agreed to resign in order to make way for the directors to be appointed by the Consolidated Gold Fields. The thanks of shareholders are due to these men, Messrs. W. J. Gibson, Minett E. Frames and N. Langkilde, who were making a big sacrifice in the company's interests. The chairman spoke also of the devoted services of the manager, Mr. Tutt, and the men under him. Every white man on the property was a shareholder. Special appreciation, too, was expressed of the services of Mr. J. S. Richardson as secretary.

Appreciative resolutions were passed in reference to these services.

The Chairman spoke glowingly of the prospects of the company, saying that it had been established that there were three gold bearing reefs on the property and the borehole results showed satisfactory figures. Time was needed to develop the property. Notwithstanding all their difficulties they had now won through to success. It was the first instance of democratic finance in mining development. The Van Ryn and Nigel reefs had been traced for a distance of a further 15 miles south and he promised that there would be an opportunity to shareholders who had supported the Southern Van Ryn in its early days to participate in that development.

Heartfelt votes of thanks were passed to the directors of the company, particularly to Mr. W. E. Bleloch, to whose indomitable perseverance Mr. Mackie Niven paid tribute.

### W.N.L.A. ANNUAL MEETING.

The annual meeting of shareholders in the Witwatersrand Native Labour

Association was held on March 30. The Chairman, Mr. E. A. Wallers, in moving the adoption of the report of the board of management and the yearly accounts, said:—Gentlemen,—Full details of the work of the association during 1917 are given in the report of the board of management which has been circulated to you. You will notice that the number of East Coast recruits who came forward during the year showed a decrease as compared with the previous year, although equalising the average of the last five years. The recruiting of natives for military purposes by the Portuguese Government had a considerable effect on the recruiting for the mines, an effect which is likely to be felt for several years to come. In addition to reducing the number coming forward, military recruiting had also a prejudicial effect on the class of recruit available for the mines inasmuch as many of the best type of native were taken for military service. Besides this adverse factor on recruiting, the exceptionally large number of recruits received during 1915 and 1916 (both of which years were record years as regards numbers) reduced the number available for recruitment in 1917. Owing, however, to a reduction in the wastage brought about not only by the fewer number of natives returning home but by the steady reduction in mortality and sickness amongst natives working on the mines, nearly as many East Coast natives were employed by members at the end of the year as at the beginning, the figures being 84,136 and 84,524 respectively, a very satisfactory result.

### Tropical Natives.

Reference is made in the report to the proposed experimental introduction of 1,000 tropical natives to the Rand for service on one of the mines, the natives to be inoculated with Dr. Lister's vaccine, and their conditions of living and working while on the Rand to be under the close observation of the Government through the Native Affairs Department and the South African Institute for Medical Research. I much regret to state that the scheme has lapsed for the time being. You will remember that when tropical natives were previously employed on the mines the objection to their employment, which ultimately brought about their removal, was their excessive death rate, principally from pneumonia. The extraordinary reduction in the incidence and death rates from pneumonia on several mines on which Dr. Lister's vaccine has been tried furnishes very strong grounds for believing that the previous high mortality would not prevail amongst tropical natives inoculated with the vaccine. The proposed experiment was in order to move whether such a belief was correct or not. Had it proved incorrect, no more would have been introduced; had it proved correct, then a much-needed augmentation of the native labour supply would, subject to the consent of the Government, have been possible, with results which would have been favourably felt not only on the Witwatersrand but throughout the whole country. It is impossible to obtain sufficient labour from present sources to enable the industries of the country to operate at full capacity, and I am convinced that it will be necessary to reopen the matter in the future.

### Military Recruiting Unit.

A number of the officials of the Association had an opportunity to renew their acquaintance with tropical areas through the scheme for the re-

cruiting of carriers for military operations in East Africa referred to in the report. The establishment under control of the Association of a separate and distinct military unit was a somewhat unique arrangement, and the degree of success attending the operations of this unit in the adverse circumstances which prevailed reflects credit on the unit and on the officers concerned.

You will notice that a re-arrangement of the capital of the association has been effected, removing certain anomalies and that provision has been made whereby the shareholdings of members are adjusted annually in proportion to their complements. The rebate on capitulation

fees for 1917 is the same as in 1916; while in spite of the considerable reduction in the number of recruits the cost per recruited shift has increased to only a small extent, viz.: from 2.67d. to 2.86d. per shift.

The resignation of Mr. W. H. Dawe and Mr. W. A. Martin from the board of the association deprived the board of the able assistance of two members associated with the industry for very many years, and were greatly regretted.

The cordial relationships prevailing between the association and the various Government Departments with which it comes in contact, and more especially the Native Affairs Department and the De-

partment of the Portuguese Curator, have been maintained throughout the year under review. It is always the aim of the association to conduct its operations in harmony with the views of these departments. In conclusion, I would place on record the board's appreciation of the excellent services rendered by the management and staff, both in Johannesburg and in Portuguese territory. I would also express the association's thanks to the Transvaal Chamber of Mines and Messrs. Breyer and Wirth. The organisation of the association and the type of recruiter employed by it are matters upon which the association is to be congratulated.

The motion for the adoption of the report and accounts was carried.

## New Patents.

621. British United Shoe Machinery (S.A.), Ltd.—Improvements in or relating to machines for inserting fasteners or the like.
622. British United Shoe Machinery (S.A.), Ltd.—Improvements in or relating to sewing or other machines for use in the manufacture of boots and shoes.
623. British United Shoe Machinery (S.A.), Ltd.—Improvements in or relating to the manufacture of footwear.
624. British United Shoe Machinery (S.A.), Ltd.—Improvements in machines for operating on heels.
625. British United Shoe Machinery (S.A.), Ltd.—Improvements in or relating to mechanisms for the conversion of rotary into oscillatory motion particularly applicable to boot or shoe edge-setting machines or other machines of this class.
626. British United Shoe Machinery (S.A.), Ltd.—Improvements in or relating to machines for lasting boots and shoes.
627. British United Shoe Machinery (S.A.), Ltd.—Improvements in or relating to pulling-over or like machines.
628. British United Shoe Machinery (S.A.), Ltd.—Improvements in or relating to work feeding and guiding means, particularly applicable to fastener inserting machines.
629. Charles Washington Merrill.—Process for precipitating and recovering valuable metal bearing materials from solutions.
630. Charles Washington Merrill.—Process for precipitating and recovering valuable metal bearing materials from solutions.
631. Seneca Lucien Berry.—Improvements in metallurgical agitators.
632. Charles Washington Merrill.—Process for precipitating and recovering valuable materials from solutions, and particularly metals from hydrometallurgical solutions.
633. Louis David Mills.—Improvements in precipitating apparatus.
634. The Afenco-Elma Syndicate, Ltd.—An improved speed-changing, reversing and braking gearing.
635. Frederick William Huber and Frank Freeland.—Improvements in process of producing cement and recovering potassium compounds.
636. Stephen James Murphy.—A new or improved pipe line or receptacle for oil or fluids under pressure.
637. Jacob S. Sparkes.—Improvements in connection with cables or couplings for cables, ropes and for like purposes.
638. Albert Carmel and Erick Lionel Hyman.—An improved specific or remedy for certain diseases in cattle, horses, sheep, goats, poultry and the like.
639. Oscar Birger Carlson.—Improvements in or relating to the method of manufacturing emmenium perchlorates.
640. George Driver Irvin.—An improved method of refloating stranded vessels.
641. James Miners Holman and John Leonard Holman.—Improvements in or relating to rock-drilling machines.
642. Anglo-Mexican Petroleum Co., Ltd., and Robert Percy Brousson.—Improvements relating to the manufacture of gas.
643. William Rintoul, Donald Cross and Nobel's Explosives Co., Ltd.—Improvements in explosives.
644. The National Malleable Castings Company.—Improvements in automatic car couplers.
645. The National Malleable Castings Company.—Improvements in automatic car couplers.
646. The National Malleable Castings Company.—Improvements in automatic car couplers.
647. Thomas Henry Bradbury.—Improvements in the method of sharpening rock drills and the means thereof.
648. James Allan.—An improved garden arch.
649. Frederick Marsh.—
650. Harold Lloyd Lyon and Samuel Stodole Peck.—Process of making a decolorizing agent and the product thereof.
651. Robert Lygerwood Esson.—Improvements in loose leaf binders.
652. John Henry Holman, James Miners Holman and Holman Bros., Ltd.—Improvements in rock-drilling machine chucks.
653. Joseph Zweibaek.—Improvements in brakes applicable for mine cage elevators and the like.
654. Joseph Zweibaek.—Improvements in brakes applicable for mine cage elevators and the like.
655. Joseph Holman and William Edwin Bottle.—Improved chuck for reciprocating rock drill and easy detachable bite for rock drilling.
656. Arthur John James Lenarath.—An improved system of mine signals.
657. Charles Washington Merrill.—Process for treating a semi-solid material in the containers of filter presses and for removing the same therefrom.
658. John Penhale.—Improvements in liquid fuel for carburetting air.
659. Peter Taylor and Richard Holt.—Improvements in or relating to holders for salt or the like for animals.
660. Donald Barns Morison.—Improvements in or relating to steam condensing plant.
661. Johan Marriott.—Improvements in apparatus for separating substances of different specific gravities, such as fine coal or ores and the like.
662. Jacob Westerbeek and Naamloose Venootschap.—"Technema."
663. Ricardo Meyer.—A waterproof or the like, with the body made without seams.
664. Everard Richard Calthrop.—Improvements relating to parachute launching devices.
665. Everard Richard Calthrop.—Improvements relating to parachute launching devices.
666. William Alexander Loke.—Improved process of reducing titaniferous iron ores.
667. Duncan McNaughton Wallace and Arthur Everett.—Improvements relating to motor tractor implements for agricultural work.
668. Duncan McNaughton Wallace and Arthur Everett.—Improvements relating to motor and motor tractor ploughs and other agricultural implements.
669. John Frederick Duke and Nutlok, Limited.—Improvements in or relating to nuts.
670. David Musgrave Edward.—Combined electric plug and switch.
671. Thomas Patrick Stanton.—Improvements in fumigating trees.
672. William Rintoul, Ernest George Beckett and Nobel's Explosives Company, Ltd.—Improvements in explosives.
673. Jacob Kruysswijk.—Improved system of transmission by (means of) alternating current.
674. Christiaan Rodewicus de Jager.—Improved mine lamp.
675. Arthur Francis Berry.—Improvements in or relating to electrical heating apparatus.
676. Martinus Christoffel Welthagen.—New and improved means for stopping and preventing damage to water wheels, turbines and the like when flow of water exceeds a predetermined amount.
677. The Leeds Forge Co., Ltd., Bertie Sharp, Joseph Hubert Sharp and Robert William Storey.—Improvements in railway and like wagons.
678. The Leeds Forge Co., Ltd., Bertie Sharp, Joseph Hubert Sharp and Robert William Storey.—Improvements in railway and like wagons.
679. Edgar Arthur Ashcroft.—Improvements in the manufacture or production of anhydrous metal chlorides.
680. John Lawrence Conway.—Improvements in miners' hand lamps.
681. Felix Johan Tromp.—An improved fire lighter.
682. Francis Temple Page.—Improvements in straining appliances.
683. Oliver Trevillion Jenkins.—Improvements in wrenches.
684. Robert Harbottle and Sigurd Siverton.—New vegetable dyes.
685. The Libbey-Owens Sheet Glass Co.—Improvements in method and apparatus for making sheet glass.
686. Washington Baker Vanderlip.—Improvements in and relating to ore concentrating machines.
687. Martin Toennessen.—Improvements in the burners of stoves and the like in which paraffin petrol, or similar fuel is burnt.
688. Sydney Pratt Blackmore.—An improved tool for securing the detonators to the fuse in the preparation of priming charges for firing explosive charges in blasting and like operations.
689. Joseph Coats.—Improvements in means of alloying dust in rock-drilling, applicable also for other purposes in mine workings.
690. General Electric Co.—Improvements in and relating to bearings.
691. William Rogers Sennett.—Improvements in closets.
692. Olindo Valeri.—Improvements in longitudinal sleepers for railway and tramway tracks.
693. Georges Albert Mortier.—Improvements in tyres for vehicles.
694. Schmidt Super-heating Co. (1910), Ltd.—Improvements in and relating to controlling devices suitable for the cylinders of locomotives.
695. Schmidt Super-heating Co. (1910), Ltd.—Improvements in and relating to steam superheaters.

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(Incorporated in the Transvaal.)

Permanent Directors.—E. Oppenheimer, W. L. Honnold.  
Directorate.—E. Oppenheimer (chairman), alternate F. R. Lynch; Hon. H. Crawford, W. L. Honnold, Hon. H. C. Hull, alternate E. S. Langerman; C. Hamilton Sabin, W. Boyce Thompson. Acting Secretary.—J. G. Carter. Auditors.—Alexander Aiken and

W. E. Goldby (Incorporated Accountants). Solicitors.—Webber, Wentzel, Solomon and Friel. Bankers.—The National Bank of South Africa, Ltd., Johannesburg. Registered Offices.—7 National Bank Buildings, Simmonds Street, Johannesburg.

## NOTICE TO SHAREHOLDERS.

### FIRST ANNUAL GENERAL MEETING.

**NOTICE IS HEREBY GIVEN** that the First Annual General Meeting of Shareholders in the above Company will be held in the Board-room, Second Floor, "The Corner House," Johannesburg, on THURSDAY, the 30th day of MAY, 1918, at 4.30 o'clock in the afternoon, for the following business:—

1. To receive the Reports of the Directors and Auditors, and to consider the Balance Sheet for the period ended 31st December, 1917.
2. To fix the remuneration for the past audit, and to appoint Auditors for the ensuing year.
3. To confirm the reappointment of Mr. Charles Hamilton Sabin as a Director of the Company.

4. To transact such other business as may be transacted at an Ordinary General Meeting.

The Transfer Registers of the Company will be closed from 27th May to 13th June, 1918, inclusive.

By Order of the Board,

J. G. CARTER,  
Acting Secretary.

Postal Address: P.O. Box 2636.  
Head Office: First Floor, National Bank Buildings,  
Simmonds Street, Johannesburg  
2nd April, 1918.

## REPORT OF THE DIRECTORS

For the Period ended 31st December, 1917.

To be submitted at the First Annual General Meeting of Shareholders, to be held in the Board Room, "The Corner House," Johannesburg, on Thursday, the 30th May, 1918, at 4.30 p.m.

To the Shareholders,

ANGLO AMERICAN CORPORATION OF S.A., LTD.

Gentlemen,—

Your Directors beg to submit their Report and the audited Financial Statements for the period ended 31st December, 1917.

### CAPITAL.

The Capital of the Corporation is 1,000,000 shares of £1 each, of which

22,500 Shares are fully paid and issued  
80,000 shares are 10s. paid  
897,500 shares are 5s. paid.

1,000,000

### GOVERNMENT MINERAL LEASES.

De SPRINGS-GEDULD SOUTH AREA.

On the 2nd October, 1917, your Corporation submitted to the Union Government a tender for the lease of the mineral rights of the Farm De Springs No. 15, with the southern portion of the Farm Geduld No. 24, an area of about 2,050 claims adjoining Brakpan Mines, Springs Mines and Geduld Proprietary Mines. This tender was not successful.

### DE RIETFONTEIN WEST LEASE AREA.

A circular was issued on the 23rd March, 1918, informing shareholders that the Union Government had previously accepted the tender submitted by your Corporation for the lease of the mineral rights of the Western Portion of the Farm De Rietfontein No. 14, comprising an area of approximately 2,236 claims. The tender provided for the formation of a new company to work the ground, with a capital of £1,400,000. Details of the financial arrangements and the proposed scheme of development and exploitation were given in the circular mentioned.

### INTERESTS AND PARTICIPATIONS IN MINING VENTURES.

Your Corporation has acquired interests and participations in the following:—

Rand Selection Corporation, Ltd.

Brakpan Mines, Ltd.

Springbok Mines, Ltd.

Daggafontein Mines, Ltd.

Schapenrust Claims.

New Geduld Deep Mynpachts.

The Rand Selection Corporation, Ltd., has an issued capital of £550,000, and its assets include:—

## Anglo American Corporation of South Africa, Limited—continued.

254,500 fully paid shares in Brakpan Mines, Ltd.

250,000 fully paid shares in Springs Mines, Ltd.

60,260 fully paid shares in Daggafontein Mines, Ltd.

24,490 fully paid shares in Daggafontein Gold Mining Co., Ltd. (in liquidation), which will be exchanged for 12,445 fully paid shares and certain options in Daggafontein Mines, Ltd.

A share in the proceeds of 424 Claims on Schapenrust No. 13.

A share in the proceeds of Mynpachts Nos. 514 and 525 on Geduld No. 24.

The freehold of the Farms Brakpan and De Rietfontein, which produce a substantial income from the Townships of Brakpan and Springs, and also from the owner's share of Claim Licences.

Since the close of the year the Rand Selection Corporation has participated in the provision of funds for the exploitation of the Government Lease Area recently acquired by Springs Mines. This will eventually increase the Rand Selection Corporation's interest in Springs Mines, Ltd., by 84,236 shares.

The Corporation paid a dividend of 30 per cent. for the year 1917, and at the end of that year the unappropriated profit amounted to £75,043.

**Brakpan Mines, Ltd.**—This Company has an issued capital of £786,100, and its mining area is equivalent to 3,387 claims, of which 1,312 are held from the Union Government under a Mineral Lease acquired in 1916. The payable ore reserve at the end of 1917 was estimated at 3,268,000 tons, of an average value of 9.2 dwt.s. per ton over a stoping width of 67 inches. The year's operations resulted in a net working profit of £471,431, and dividends amounting to 47½ per cent., absorbing £367,525, were declared. The average yield for the year was 34s. 6d. working costs averaged 20s. 3d., and working profit 14s. 3d. per ton milled.

**Springs Mine, Ltd.**—At the 31st December last the issued capital of this Company was £1,000,000, outstanding debentures amounted to £314,550, and there was, in addition, an excess of liabilities over liquid assets of £135,939. The mining area was increased during 1917 by the acquisition from the Union Government of a Mineral Lease equivalent to 2,236 claims, and now stands at a total of 3,568 claims. The payable ore reserve at the 31st December, 1917, was estimated at 2,567,000 tons, of an average value of 9.8 dwt.s. per ton over a stoping width of 55 inches. Crushing was commenced in 1917, and operations to the end of the year resulted in a net working profit of £258,711. The acquisition of the Mineral Lease will necessitate an increase in the capital from £1,000,000 to £1,500,000, and the Anglo American Corporation of South Africa, Ltd., has accepted an interest in the guarantee of the provision of this additional capital.

**Daggafontein Mines, Limited.**—The issued capital of this company at the 31st December last was £648,033. The Company is

the owner of the freehold of the Farm Daggafontein No. 25, upon the proclamation of which it will be entitled to approximately 1,436 mining claims. The total development footage accomplished to the end of 1917 amounted to 5,035ft., of which 3,420ft. were on the reef. The footage sampled totalled 3,280ft., the average assay value being 22.26 dwts. over 13.68 inches. Of the footage sampled during 1917, 62.3 per cent. showed payable assays, averaging 22.59 dwts. over 26.37 inches. In September last, in consequence of an inflow of water, development was stopped, and a pumping plant is now being installed in the No. 1 Shaft at the 2,000ft. Station. A second vertical shaft was commenced in 1916, and at the end of 1917 had reached a depth of 519 feet.

**Schapenrust Claims.**—This property comprises 424 gold claims on the Farm Schapenrust No. 13, adjoining the southern boundary of the Brakpan Mines property. The claims have been sold to Brakpan Mines, Limited, for a consideration based on the annual profits earned by that Company. It is anticipated that this interest will produce satisfactory revenue to the Anglo American Corporation of South Africa, Limited, during the whole life of Brakpan Mines.

**New Geduld Deep Mynpachts.**—These Mynpachts (Nos. 514 and 525), which are equivalent in area to 172 mining claims, are situated in the Far East Rand area, on the Farm Geduld No. 24. Up to the present no work has been done on the property.

## GENERAL.

An arrangement has been entered into with The Consolidated Mines Selection Company, Limited, for mutual participation in certain classes of new business which may eventuate.

## DIRECTORATE.

In accordance with the Articles of Association, your Directors retain office until the Ordinary General Meeting in 1922.

You will be asked to confirm the reappointment of Mr. Charles Hamilton Sabin as a Director of the Corporation.

## AUDITORS.

In terms of Section 99 of the Companies Act, 1909, your Directors appointed Messrs. Alexander Aiken and Walter Ernest Goldey, the first Auditors of the Corporation. You are requested to fix the remuneration of these gentlemen for the past audit and to appoint Auditors for the ensuing year.

F. R. LYNCH, Acting Chairman.

H. CRAWFORD,

E. S. LANGERMAN, Directors.

J. G. CARTER, Acting Secretary.

Johannesburg, 15th April, 1918.

## PROFIT AND LOSS ACCOUNT from the Incorporation of the Company to December 31st, 1917.

LIABILITIES.		ASSETS.	
To Directors' Fees	£250 0 0	By Interest and other Revenue	£3,824 2 11
,, Secretarial, Office, General Expenses and Stationery	423 7 11	,, Balance	11 13 8
,, Legal Expenses	125 4 0		
	£798 11 11		
,, Preliminary Expenses written off	3,037 4 8		
	£3,835 16 7		
			£3,835 16 7

J. G. CARTER, Acting Secretary.

F. R. LYNCH, Acting Chairman.

H. CRAWFORD,

E. S. LANGERMAN, Directors.

Examined and found correct,

W. E. GOLDEY,

ALEX. AIKEN, Auditors.

(Incorporated Accountants.)

Anglo American Corporation of South Africa, Limited—continued.

## BALANCE SHEET, DECEMBER 31st, 1917.

LIABILITIES.		ASSETS.	
Capital— Authorised	£1,000,000 0 0	Interest and Participations in Mining Ventures	£147,287 10 0
Divided into 1,000,000 Shares of £1 each.		Loans, with Accrued Interest	154,051 19 9
Issued	£286,875 0 0	Sundry Debtors	5,147 3 2
897,500 Shares, upon which 5s. per Share has been paid up	£224,375 0 0	Cash	601 13 5
80,000 Shares, upon which 10s. per Share has been paid up	40,000 0 0	Profit and Loss Account	11 13 8
22,500 Shares, upon which 20s. per Share has been paid up	22,500 0 0		
<b>1,000,000</b>			
Trade Creditors	225 0 0		
Contingent Liabilities— The Company has entered into guarantees with various Companies in connection with Loans and Subscriptions for Working Capital.			
	<b>£287,100 0 0</b>		<b>£287,100 0 0</b>

J. G. CARTER, Acting Secretary.

F. R. LYNCH, Acting Chairman.

to the Shareholders,

H. CRAWFORD,

ANGLO AMERICAN CORPORATION OF S.A., LTD.

E. S. LANGERMAN,

Directors.

We report that we have examined the above Balance Sheet with the Books and Vouchers of the Corporation, and have obtained all the information and explanations we have required. In our opinion, such Balance Sheet is full and fair, and contains the particulars required by the Articles of Association, and is properly drawn up so as to exhibit a true and correct view of the Corporation's affairs, according to the best of our information and the explanations given us and as shown by the Books of the Corporation.

W. E. GOLDBY,

ALEX. AIKEN, Auditors,  
(Incorporated Accountants.)

Johannesburg, 28th March, 1918.



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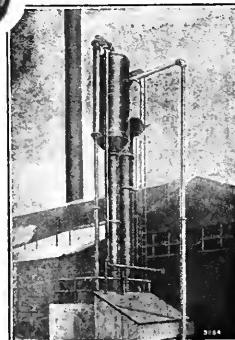
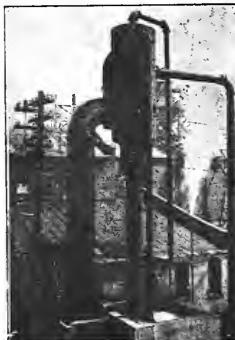
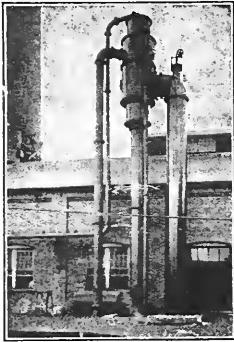
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